



Research Product 98-20

**Direct and Lead Units in Execution of Battle
(Battlefield Function 20)
as Accomplished by a
Direct Support Field Artillery Battalion
Volume 2: Assessment Package**

William J. Mullen III and Robin Elder
BDM Federal, Inc.

James W. Keesling
PRC, Inc.

January 1998

Armored Forces Research Unit

U.S. Army Research Institute for the Behavioral and Social Sciences

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14. ABSTRACT (<i>Maximum 200 words</i>): The purpose of the overall research program was to document the synchronization required by command and control tasks performed within the armored brigade, to include combat support and combat service support units. The immediate application of the documentation was to support developers of staff training in two related projects: Battle Staff Training System and Staff Group Trainer. The documentation was also intended to assist with the planning and execution of collective training. The documentation approach was to apply function analysis (FA) techniques for battlefield functions (BFs) in the Command and Control battlefield operating system. Thirteen FAs were developed for the brigade headquarters and four supporting units: direct support field artillery battalion, engineer battalion, forward support battalion, and air defense artillery battery. The FAs were revised through a formative evaluation process that included internal review and successive external reviews by combat training centers, proponent agencies, and a review council representing potential users of the FAs. The final products include the FAs, a user's guide, and assessment packages for the BFs. This report provides the assessment package for BF 20 as performed by the direct support field artillery battalion.					
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FOREWORD

One of the goals for the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) is to facilitate the development of training strategies that will serve the needs of the combined arms team today and into the 21st century. The indispensable foundations, the cornerstones, for meeting this goal are solid information and data bases. One such base is a set of comprehensive descriptions of how soldiers accomplish their missions. Many task descriptions have been developed where the focus is on activities within a particular Battlefield Operating System (BOS); these are often further narrowed to one BOS element within one echelon. What have been lacking are function analyses along with task descriptions that have a broader BOS perspective; one which focuses not only on intra-BOS relationships, but also the relationships of that BOS with other BOSs in accomplishing the overall mission. It is this latter perspective which is needed, for example, to define training requirements and strategies for combined arms operations.

The assessment procedures described in this report are based on a function analysis resulting from one of three efforts conducted under the ARI project, “Innovative Tools and Techniques for Brigade and Below Staff Training (ITTBBST).” The work in this part of ITTBBST is the fifth in a series of ARI projects directed at analyzing the vertical and horizontal synchronization required by combined arms operations. All of the projects have analyzed functions, previously labeled “critical combat functions (CCFs)” and now labeled “battlefield functions (BFs).” The previous projects analyzed: all BFs performed by a heavy battalion task force; a sample of seven BFs performed by an armored brigade; and the integration of fire support BFs as performed by an armored brigade and at echelons higher than brigade. The research in this project analyzed BFs in the Command and Control BOS. Separate coordinated analyses of these BFs were performed for the armored brigade headquarters and four types of supporting units, one of which is the Direct Support Field Artillery Battalion.

The analyses developed in the project have been used in the development of staff training in related projects within the ITTBBST program. In addition, U.S. Army Training and Doctrine Command (TRADOC) representatives have identified a variety of applications by TRADOC training and other developers as well as potentials for collective training management.

ZITA M. SIMUTIS
Technical Director

ACKNOWLEDGMENTS

The assessment package contained in this volume is based on the battlefield function analysis presented in Volume 1. That analysis benefited from considerable dedicated effort on the part of many persons. The efforts of a few of these many persons are specifically and gratefully acknowledged here. An especially key person was MG (Ret) Lon E. Maggart, Commanding General of the U.S. Army Armor Center (USAARMC). Prior to and during the conduct of this effort, he contributed greatly to definition of training needs and concepts in support of Force XXI. He saw that battlefield functional analyses could provide a valuable foundation for Force XXI training development efforts; hence, MG (Ret) Maggart strongly backed these efforts.

COL G. Patrick Ritter and LTC Marvin K. Decker, acting in accordance and agreement with MG (Ret) Maggart's vision, vigorously pursued battlefield function analysis efforts and persevered in ensuring their application to Force XXI training developments. COL Ritter, Director of Directorate of Training Development and Doctrine (DTDD) at USAARMC, and LTC Decker, Chief of DTDD's Force XXI Training Program office, ensured implementation of necessary actions, and the participation of military subject matter experts and potential users of function analysis products as needed to assure quality outcomes.

Among many participants in performing the analyses themselves, and validating their integrity and validity, were members of the U.S. Army Field Artillery School (USAFAS), DTDD at USAARMC, and Operations Group at the National Training Center (NTC). Final recommendations and approval of these analyses were provided by proponents and users constituting the Force XXI Review Council. Members of the Review Council included: COL G. Patrick Ritter and LTC Marvin K. Decker, USAARMC; LTC James R. Harrison, U.S. Army Armor School (USAARMS); LTC David M. Annen, USAFAS; LTC Larry Newman, U.S. Army Air Defense Artillery School; COL Philip Federle, U.S. Army Engineer School; LTC Roger F. Murtie, National Training Center; LTC Gilbert Pearsall, Joint Readiness Training Center; COL Roger W. Jones, TRADOC Program Integration Office-Army Battle Command System; and COL Robert J. Fulcher, 29th Infantry Regiment.

The research for and preparation of this report benefited immeasurably from the assistance provided by members of the U.S. Army Research Institute. Specifically, the authors would like to acknowledge Dr. Kathy Quinkert for her continual support and guidance. As Contracting Officer's Representative, she interfaced with the FXXITP and the Army audience continually in providing program intent. Additionally, Ms. Dorothy Finley is acknowledged for serving as a peer reviewer for the product. She offered constructive comments that have improved both the content and style of the report. Also, special recognition is given to Ms. May Throne, a Consortium Research Fellow from the University of Louisville assigned to Fort Knox, and Ms. Lori Cracknell. Their never ending efforts to assist in the formal production of this report will not soon be forgotten.

DIRECT AND LEAD UNITS IN EXECUTION OF BATTLE (BATTLEFIELD FUNCTION 20) AS ACCOMPLISHED BY A
DIRECT SUPPORT FIELD ARTILLERY BATTALION VOLUME 2: ASSESSMENT PACKAGE

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INTRODUCTION

The results of the Army Research Institute's examination of battlefield functions (BFs) relevant to a brigade combat team's combined arms operations are in a series of two volume sets. These sets cover brigade headquarters and the supporting units of air defense artillery battery, engineer battalion, field artillery battalion, and forward support battalion. Volume 1, Function Analysis, identifies and describes information and tasks necessary to accomplish the function. The analysis is targeted at planning and conducting collective training. Volume 2 provides an Assessment Package. It implements an assessment approach that identifies the purpose of the unit's action in relation to the function. This provides a basis for appraising the performance of the function and the outcomes resulting from it. The assessment package is intended to support the conduct of a training event, such as a field training exercise (FTX) or command post exercise (CPX). The package assists assessment planning, data collection, and using the collected data in the conduct of after action reviews (AARs). The materials assume skilled observers who can quickly identify when a unit is performing especially well or not, and, if not, the nature of the problem. Nothing in the Assessment Package can substitute for that expertise. The package adds value to two aspects of assessment. First, consistency in the assessment of multiple observers is facilitated through the consideration of the same outcomes and tasks. Second, efficiency in the assessment and AAR process is enhanced.

This assessment package is for the direct support field artillery battalion. It is organized to allow a commander or other observer to consider performance at several levels associated with increasingly focused questions:

- Did the unit achieve the purpose of the BF (e.g., for BF 19, to provide leadership, direction, command, and control during preparation for the battle)?
- If the purpose was not achieved, which outcomes did not occur? (e.g., Did subordinate leaders demonstrate an understanding of the critical elements of their own mission and mission essential tasks, the brigade mission, and the brigade commander's intent?)
- If an outcome did not occur or if performance was exemplary, what components of the outcome (e.g., backbriefs, rehearsals) or clusters of tasks (e.g., rehearsal tasks related to level of participation, priority of tasks, and realism) were notable strengths or weaknesses?

The tools provided in this Assessment Package include:

- Worksheet: This provides a means to record brief answers to each of above three questions.

- **Assessment Strategy and Assessment Scale:** The Strategy section advises where assessment personnel should be stationed to both observe performance, and review incoming information and outgoing products. The Assessment Scale can be used to assign evaluative ratings to both observations and products.
- **Outcome Assessment Observations and Diagnostic Aids:** These forms guide observers in making their evaluative ratings and then in further specifying, or diagnosing, any weakness in the observed performance.
- **Product Review Measures of Effectiveness:** These forms provide a means for collecting information regarding each of the products. They identify the products to be reviewed, which items to evaluate, and the information to be recorded.

Planning Assessment

The Assessment Strategy tool, briefly noted above, lists all outcomes that could be addressed, suggests where observers should be located, and specifies activities and products to be observed. The strategy helps commanders decide which outcomes should be addressed, guides the estimate of the number of observers and types of enemy forces required, and identifies the relevant assessment tools in the package (e.g., measures of effectiveness, outcome assessment guides, and diagnostic aids).

Conducting AARs

In assessing the training and organizing the AAR, the commander or observer progresses through three decisions. The first decision is whether the function was accomplished and if it should be addressed in the AAR. This decision is typically based on whether the unit accomplished the purpose of the function and the outcomes that support the purpose. The next level of choice is the selection of function outcomes that are appropriate for the AAR. This analysis is supported by objective measures in the Assessment Package's tables and a framework for systematic expert judgment concerning performance related to the outcome. The third level of selection concerns the specific behavior related to the outcome that was pivotal to the unit's success or failure. This selection is aided by data collected in accordance with the observation and product review guides for each component. In complex outcomes, the performance requirements are broken into components to help the commander or other observers focus their attention. In all cases, related tasks and supporting tasks are summarized to describe behavior required to achieve the outcome. Two types of measures help provide the desired consistency and efficiency.

Outcome Assessment Guides. These guides usually require the commander or observer to be present to watch the unit's actions and judge the results. Tasks and supporting tasks associated with each outcome are grouped into likely strengths or weaknesses. The guides are supported by diagnostic aids tied to the function analysis in Volume 1. The diagnostic aids list the tasks and supporting tasks that apply to the outcome components and task summaries.

Product Review Measures of Effectiveness. These measures help anchor the assessment with objective data. The tables associated with the measures of effectiveness should be completed for each event that covers the relevant outcomes. Over time, the measures will provide a context for showing how performance compares with other units or with previous performance by the subject unit. Many of the measures can be completed based on products, so the commander or observer does not have to view the performance. There should, however, be a mechanism in place to collect and process the information before the AAR.

WORKSHEET

MISSION _____
DATE _____
UNIT _____

Briefly state the intents of the armored brigade commander and the division artillery (DIVARTY) commander:

DIVARTY commander's intent:

Armored brigade commander's intent:

PURPOSE OF THE BF: The artillery battalion provides indirect fires and fire support coordination to accomplish the mission within the supported commander's intent.

Did the battalion achieve this purpose? (Circle one:) YES NO

If this performance exceeded the standard, please describe any techniques of superior performance. These are techniques that you believe should be cited in the AAR and, perhaps, relayed through lessons learned agencies to be shared with the rest of the Army.

Outcome	Achieved?	Notes
OUTCOME 1: The Direct Support Field Artillery (DS FA) battalion (Bn) command posts (CPs) maintain continuous communications with higher, adjacent, and subordinate headquarters.	Y N	<hr/> <hr/> <hr/> <hr/> <hr/>
OUTCOME 2: The DS FA Bn commander, other decision makers, and the DS FA Bn staff receive, evaluate, and process timely and accurate battlefield information during mission execution.	Y N	<hr/> <hr/> <hr/> <hr/> <hr/>
OUTCOME 3: Tactically sound recommendations are developed and critical information is communicated by the DS FA Bn staff, subordinate commanders and supported unit commanders.	Y N	<hr/> <hr/> <hr/> <hr/> <hr/>
OUTCOME 4: Sound (suitable, feasible, acceptable) decisions are made by the DS FA Bn commander and others within the battalion.	Y N	<hr/> <hr/> <hr/> <hr/> <hr/>

Outcome	Achieved?	Notes
OUTCOME 5: Affected units and personnel receive relevant direction, changes, and refinements to the plan in time to perform troop leading procedures (TLPs) and execute coordinated and synchronized actions.	Y N	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
OUTCOME 6: Subordinate leaders demonstrate understanding of the critical elements of their own mission and mission essential tasks, the DS FA Bn mission, and the DS FA Bn commander's intent.	Y N	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
OUTCOME 7: Soldiers are motivated, disciplined, and maintain unit cohesion during the battle.	Y N	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
OUTCOME 8: The DS FA Bn command, control, communications, and intelligence (C3I) capability is effective, survives, and is prepared for the next mission.	Y N	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

ASSESSMENT STRATEGY

Locations to observe unit performance and aspects of that performance relevant to assessment are suggested for each Outcome. The suggested locations and focus/foci are not meant to be an exhaustive or all inclusive list.

Outcome	Location and Focus of Assessment
OUTCOME 1: The Direct Support Field Artillery (DS FA) battalion command posts (CPs) maintain continuous communications with higher, adjacent, and subordinate headquarters.	(Use Tables 2 and 3) <ul style="list-style-type: none"> • With DS FA Bn CPs to monitor communication to and from: brigade, adjacent units, and subordinate DS FA Bn units. • Appraise continuity of communications if DS FA Bn CPs move, or if location or tempo of battle changes.
OUTCOME 2: The DS FA Bn commander, other decision makers, and the DS FA Bn staff receive, evaluate, and process timely and accurate battlefield information during mission execution.	Focus is on Situational Awareness [seeing the battlefield], based primarily on collection and evaluation of information by the staff. (Use Tables 3, 4, 5, and 6) <ul style="list-style-type: none"> • With DS FA Bn CPs to monitor gathering of information during battle. • With DS FA Bn CPs to monitor evaluation of battlefield information and updating of products (templates, matrices, etc.). • Compare staff time required to evaluate information and update products to time available to keep pace with requirements of supported brigade. • Compare accuracy of information and updates to products to actual mission, enemy, terrain, troops, and time available (METT-T) (Situational Awareness: Appraise both during and after the battle).
OUTCOME 3: Tactically sound recommendations are developed and critical information is communicated by the DS FA Bn staff, subordinate commanders and supported unit commanders.	Focus is the staff providing information. (Use Tables 3, 4, 6, 7, and 9) <ul style="list-style-type: none"> • With DS FA BN CPs to monitor development of recommendations for DS FA Bn commander. • Compare recommendations to actual METT-T (Situational Awareness: Appraise both during and after the battle).

Outcome	Location and Focus of Assessment
<p>OUTCOME 4: Sound (suitable, feasible, acceptable) decisions are made by the DS FA Bn commander and others within the battalion.</p>	<p>Focus is the commander's assessment and decision making (development of the FRAGO, if needed). (Use Tables 3, 4, 6, 7, and 9)</p> <ul style="list-style-type: none"> • With DS FA Bn commander and DS FA Bn staff to appraise (both before and after the battle): <ul style="list-style-type: none"> -- Suitability: will course of action (COA) accomplish mission and meet intent of brigade commander? -- Feasibility: does DS FA Bn have means (time and physical resources) to execute COA? -- Acceptability: will COA risk unacceptable losses of personnel or equipment, or place DS FA Bn in an untenable position with respect to anticipated follow-on mission(s)? • Development of fragmentary order (FRAGO) to support commander's intent.
<p>OUTCOME 5: Affected units and personnel receive relevant direction, changes, and refinements to the plan in time to perform troop leading procedures (TLPs) and execute coordinated and synchronized actions.</p>	<p>Focus is on implementing commander's intent, actual production of the FRAGO, issuing and disseminating FRAGOs, and units having time to implement; i.e., being/doing what is required. (Use Tables 7, 8, and 9)</p> <ul style="list-style-type: none"> • With DS FA Bn staff to monitor production and dissemination of FRAGO. • With DS FA Bn subordinate units to monitor receipt of changes and refinements to plans. <ul style="list-style-type: none"> -- Do subordinate units have time to execute required actions? -- Do subordinate units have time to execute TLPs and perform required actions? • Appraise support DS FA Bn provides to armored brigade.

Outcome	Location and Focus of Assessment
<p>OUTCOME 6: Subordinate leaders demonstrate understanding of the critical elements of their own mission and mission essential tasks, the DS FA Bn mission, and the DS FA Bn commander's intent.</p>	<p>Focus is on demonstration of understanding by briefback and by executing the correct action, which can be observed by the commander. (Use Tables 1, 3, and 9)</p> <ul style="list-style-type: none"> • With DS FA Bn commander when: <ul style="list-style-type: none"> a) he meets with subordinate DS FA Bn leaders to receive information and issue directions, and b) he receives reports from subordinates. • Check that DS FA Bn commander is, himself, checking to ensure subordinate leaders understand their mission and the DS FA Bn commander's intent and concept. • With subordinate units to assess extent to which they execute their mission and achieve the DS FA Bn commander's intent.
<p>OUTCOME 7: Soldiers are motivated, disciplined, and maintain unit cohesion during the battle.</p>	<p>(Use Table 9)</p> <ul style="list-style-type: none"> • With DS FA Bn commander to monitor use of leadership techniques. • With subordinate units to check morale, cohesion, awareness of situation, among soldiers.
<p>OUTCOME 8: The DS FA Bn command, control, communications, and intelligence (C3I) capability is effective, survives, and is prepared for the next mission.</p>	<p>(Use Tables 1 and 2)</p> <ul style="list-style-type: none"> • With DS FA Bn CPs and subordinate leaders to determine if command and control (C2) capability survives • If a key C3I system becomes combat ineffective an alternative system rapidly takes its place. • If the DS FA Bn commander becomes combat ineffective the succession of leadership plan is implemented effectively. • DS FA Bn commander confirms that DS FA Bn is prepared to continue with the next mission.

ASSESSMENT SCALE

Whenever the unit's performance must be rated with respect to an outcome, or component of an outcome, the rating should be on the scale Adequate, Marginal, Not Adequate, defined below. Whenever these ratings are required, the outcome (or component) will be framed in a box with the rating scale, as in this example:

OUTCOME 1: The DS FA Bn CPs maintain continuous communications with higher, adjacent, and subordinate headquarters.	Adequate	Marginal	Not Adequate
--	----------	----------	--------------

In each case, circle the appropriate rating, using the scale below for guidance:

Adequate	Marginal	Not Adequate
The unit can successfully achieve the outcome to standard. Outcome is achieved with no significant shortcomings.	The unit can successfully achieve the outcome with some shortcomings.	The unit cannot achieve the outcome to standard.

Two sub-sections are included with each Outcome's section to assist in the selection of an appropriate rating. These sub-sections should be used if the observer requires more information upon which to base a rating or requires precision to focus planning for training:

- 1) The first sub-section consists of assessment statements which orient the observer on observable performances related to the tasks contributing to achieving the Outcome. The assessment statements were derived by incorporating the substance of several tasks.
- 2) The second sub-section entitled Diagnostic Aid lists the tasks and subtasks supporting that particular Outcome. The diagnostic aid permits selection of specific tasks to facilitate planning future training.

Where appropriate due to complexity, some Outcomes have been divided into outcome components which are assessed separately.

OUTCOME ASSESSMENT OBSERVATIONS AND DIAGNOSTIC AIDS

OUTCOME 1 ASSESSMENT

OUTCOME 1: The DS FA Bn CPs maintain continuous communications with higher, adjacent, and subordinate headquarters.	Adequate	Marginal	Not Adequate
--	----------	----------	--------------

(Use Tables 2 and 3)

Assessment Statements

- The DS FA Bn commander, in his role as fire support coordinator (FSCOORD) for the armored brigade, positions himself where he can best work with the brigade commander to synchronize indirect fires with the conduct of brigade operations and provide advice to the brigade commander.
- The DS FA Bn commander positions himself to enable communications with the brigade, adjacent units, DS FA subordinate commanders, DS FA Bn tactical operations center (TOC), and supported brigade units.
- The DS FA Bn CPs are positioned to enable communications with the brigade, adjacent units, DS FA Bn subordinate commanders, and supported brigade units.
- If necessary, the DS FA Bn CPs move by split echelon to maintain continuous communication capability.

OUTCOME 1 DIAGNOSTIC AID

OUTCOME 1: The DS FA Bn CPs maintain continuous communications with higher, adjacent, and subordinate headquarters.

Task Elements

1. **The direct support field artillery battalion commander directs and leads subordinate forces.** [U.S. Army Training and Doctrine Command (TRADOC) pamphlet (Pam) 11-9, Chap 7 and appendix (App) D]
 - 1a. The DS FA battalion commander directs subordinate forces.
 - 1a2 The DS FA battalion commander positions himself on the battlefield where he can best fulfill both his responsibilities as the FSCoord to the brigade commander and as the DS FA battalion commander.
 - a) As the brigade FSCoord, positions himself where he can best influence the battle and assist the brigade commander in synchronizing indirect fire support.
 - (1) With the brigade commander.
 - (2) In the fire support element (FSE).
 - b) As the DS FA battalion commander, when required, is in the DS FA battalion area to best exercise his commander duties.
5. **The direct support field artillery battalion command posts manage and maintain command, control, and communications.**
 - 5a. DS FA battalion CPs manage means of communicating information. [Field manual (FM) 101-5, Chap 6, App B, L; Army Training and Evaluation Program (ARTEP) 6-115-MTP (mission training plan), Task 06-3-01-2150, 2160, 2120]
 - 5a1 The DS FA battalion commander employs an “information manager” from the staff (usually the DS FA battalion S3): [FM 101-5, Chap 6, App B]
 - c) The DS FA battalion S3 at the TOC manages communication: [ARTEP 6-115-MTP, Task 06-06-3-01-2120; FM 6-20-1, pp. 6-7 - 6-21]
 - (1) Facilitates control and coordination for the DS FA battalion commander through communication with subordinate, adjacent, and supporting elements.

- (3) Operates and monitors communications nets.
 - (a) DS FA battalion command (voice).
 - (b) Brigade command (voice).
 - (c) Fire support nets (voice and digital).
 - (d) Fire direction nets (voice and digital).
 - (e) DS FA battalion operations/fire (voice).
 - (f) DS FA battalion administration and logistics (A/L) (voice).
 - (g) DIVARTY command (voice).
 - (h) DIVARTY operations/fire (voice and digital).

5a2 Liaison officers (LNOs) provide information to the DS FA battalion commander and staff and to the headquarters they represent. [FM 101-5, App L]

5a6 Trains CPs (administrative and logistics operation center (ALOC)/battalion support operations center (BSOC)).

- c) The DS FA battalion S4, assisted by the personnel services noncommissioned officer (PSNCO), supervises ALOC operations. [FM 6-20-1, p. 7-5; FM 6-20-40, p. F- 4]
 - (1) Manages the DS FA battalion A/L net; maintains communications with subordinate and supporting units and headquarters.
 - (2) Monitors the tactical situation and maintains communications to ensure that ALOC is prepared to assume duties of the DS FA battalion TOC if needed.
 - (3) Operates on and monitors communications nets.
 - (a) DS FA battalion command.
 - (b) DS FA battalion A/L.
 - (c) Brigade A/L.

5b. The DS FA battalion CPs maintain command, control, and communications (C3) throughout the battle. [FM 6-20-40, p. 26; FM 6-20-50, App C; FM 101-5, Chap 5 and 6, App A, B, L]

5b1 Positioning is such that the DS FA battalion commander maintains communications with brigade, DIVARTY, reinforcing battalion, and subordinate units to provide continuous fire support to the force during the battle and the consolidation and reorganization phase. [FM 6-20-1, p. 3-25]

- a) The DS FA battalion commander exercises command and control during mission execution.

- b) DS FA battalion, battery, and platoon CPs displace, as required, during mission execution to provide the most responsive fire support during the battle.
- 5b2 The DS FA battalion CPs take action to survive: [FM 6-20-1, p. 3-25]
 - a) DS FA battalion staff ensures that CPs are not detected by the enemy by using passive defense measures.
 - b) The DS FA battalion CPs use cover, concealment, and routes which reduce detection by the enemy.
 - c) Local security is structured to provide early warning, perimeter protection, and a reaction force for immediate response.
 - d) Operations security (OPSEC) is continually monitored.
- 5b3 Communications are maintained without interruption with all subordinate elements and brigade ~~allow~~ the DS FA battalion commander and staff to exercise command and control. [FM 6-20-1, p. 3-26]
- 5c. The DS FA battalion re-establishes C3 operations in the event of the loss or destruction of the TOC. [FM 101-5, Chap 5, App B; Battle Command Techniques and Procedures, Chap 4]
- 5c1 In the event of a catastrophic loss of communications, C3 for the DS FA battalion is assumed per the DS FA battalion tactical standing operating procedures (TSOP) or plan. Continuity of operations for the DS FA battalion is a function of the automated fire control present in the battalion.
 - a) Tactical fire direction system (TACFIRE).
 - (1) Control assumed by reinforcing battalion TOC in mutual support unit role. (First priority).
 - (2) Control assumed by a pre-designated battery. (Second priority for degraded operations).
 - b) Improved fire support automation system (IFSAS)/light TACFIRE.
 - (1) In the event of a loss of the dual station fire direction center (FDC), mutual support can be assumed by any pre-designated single station briefcase terminal/lap-top computer unit. Priorities for continuity of operations:
 - (a) DS FA battalion operations and intelligence (O&I).
 - (b) The brigade FSE.
 - (c) Reinforcing battalion.
 - (d) Autonomous operations.
 - (2) Activation of mutual support requires proper system initialization and command authorization.
 - c) Advanced field artillery tactical data system (AFATDS).
 - (1) AFATDS software and distributed architecture provide internodal (within an operational facility [OPFAC]) and intranodal (external OPFAC) continuity of operations.
 - (2) Continuity of operations is a battle drill necessary for any operation.

- (3) Listed below are the primary backup units for the divisional AFATDS nodes. Secondary backup units may be established based on the DS FA battalion TSOP.

Principal	Primary Backup	Secondary Backup
Division Main FSE	Division TAC FSE	Division Artillery O&I
Division Tactical (TAC) FSE	Division Main FSE	Division Artillery O&I
Division Artillery Brigade (Bde) FSE	Reinforcing Bde	
DS Bn FDC	Bde TAC	DS Bn FDC
	DS Bn O&I	Reinforcing Bn FDC or Bde FSE
DS Artillery Bn CP	Reinforcing FA battalion	Bde FSE

6. **The direct support field artillery battalion commander provides leadership and directs planning to ensure that the fire support system is sustained.** [FM 6-20-1, Chap 7; FM 6-20, pp. 3-5 - 3-6]
- 6d. The DS FA battalion commander directs the staff to assist in providing support for the brigade during the brigade consolidation. The DS FA battalion coordinating and special staff accomplish the following: [FM 101-5, Chap 4; Battle Command Techniques and Procedures, Chap 2, 3; FM 71-3, App H]
- 6d3 The DS FA battalion S3:
- d) Maintains communications with brigade leadership and staff.

OUTCOME 2 ASSESSMENT

OUTCOME 2: The DS FA Bn commander, other decision makers, and the DS FA Bn staff receive, evaluate, and process timely and accurate battlefield information during mission execution. (Use Tables 3, 4, 5, and 6)

Component A. The DS FA Bn CPs acquire accurate battlefield information during the execution of the battle.	Adequate	Marginal	Not Adequate
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Assessment Statements

- DS FA Bn CPs and staff support the mission by exchanging information with brigade, DIVARTY, adjacent, and supported units.
- Staff members obtain information that is critical to assisting the DS FA Bn commander to direct execution of the DS FA Bn support of the brigade battle.
- DS FA Bn S3 manages the flow of information through the DS FA Bn TOC.
- DS FA Bn S2 (intelligence) section obtains:
 - Intelligence summaries (INTSUMs) and spot reports from Bde, DIVARTY and division staff.
 - OPSEC reports from the DS FA Bn S3/operations section and subordinate units.
 - Updates from the Bde S2 on enemy activity.
 - Information from fire support teams (FIST)/fire support officer (FSO)/combat observation/lasing teams (COLTs).
- DS FA Bn S3 (operations) section obtains:
 - Changes to mission concept or plan from DS FA Bn commander.
 - FRAGOs/warning orders (WARNOs) from brigade headquarters (HQ).
 - Situation updates from Bde and DIVARTY staff.
 - Subordinate units' situation reports (SITREPs).
 - Requests for resources from subordinate DS FA Bn units.
 - Recommendations from subordinate DS FA Bn commanders on changes to the fire support plan.
 - Information from the DS FA Bn S2 that confirms or refutes the estimate of the situation required to achieve the DS FA Bn commander's (Cdr's) intent.

- DS FA Bn S1 section obtains personnel information:
 - Personnel status from DS FA Bn subordinate units.
 - Personnel information from DIVARTY S1.
 - Morale and discipline indicators from DS FA Bn special staff officers.
 - Information from brigade military police (MP) platoon leader concerning enemy prisoner(s) of war (EPW) processing and evacuation requirements.
- DS FA Bn S4 section obtains logistics information:
 - Logistics reports from DS FA Bn subordinate units -- status of supplies, equipment readiness.
 - Logistics reports from supported units -- equipment readiness, supply storage and resupply status.
- DS FA Bn fire direction officer (FDO) and fire direction center (FDC) section obtain fire support information:
 - Changes from the DS FA Bn Cdr, DS FA Bn S3 and Bde FSO to Bde Cdr's mission concept and intent.
 - Changes from the Bde FSO, DS FA Bn S3 and Bn TF FSOs to preplanned and scheduled fires resulting from changes to Bde tactical situation.
- The Bde FSCoord (DS FA Bn Cdr), Bde FSO and Bde FSE section obtain fire support information:
 - Changes from the Bde Cdr to guidance and mission concept.
 - Changes to the tactical situation.
 - Intelligence information from the DS FA Bn S2, Bde S2, division FSE and DIVARTY TOC about:
 - Enemy capabilities to attack DS FA Bn.
 - Target acquisition assets related to tracking high payoff targets (HPTs).
- FA status from DS FA Bn S3, DIVARTY, and division FSE.
- Task organization and status of execution of fire support plans from Bn TF FSOs.
- Requests for fires from TFs other than those planned.

Component B. The DS FA Bn CPs evaluate information and update products during the execution of the battle.	Adequate	Marginal	Not Adequate
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Assessment Statements

- DS FA Bn S2 section tracks the enemy, evaluated intelligence information, and updates intelligence products:
 - Situation template (SIT TEMP).
 - Intelligence portion of the decision support template (DST).
 - Event template.
 - Intelligence overlays and graphics.
 - DS FA Bn INTSUMs.
- DS FA Bn S3 section evaluates operations information and updates operations products:
 - Current situation map, target planning maps, and fire support overlays.
 - Operational portion of the DST.
 - Synchronization matrix.
 - Fire support execution matrix (FSEM).
 - Modified combined obstacle overlay (MCOO).
 - DS FA Bn status boards and charts which track tube and ammunition (ammo) status.
- DS FA Bn FDO and FDC section evaluate information and update FDC products:
 - Changes to commander's criteria entered in TACFIRE.
 - Situation map, fire support coordinating (FSCM) and location of friendly units.
 - Fire plans and current target overlay.
 -
- Bde FSO and Bde FSE section evaluate information and update fire support products:
 - FSEM.
 - Target lists, including HPT list.
 - Fire support graphics.
 - FSCM.

- Aviation plan (with Bde air liaison officer (ALO) and Army aviation LNO).

OUTCOME 2 DIAGNOSTIC AID

OUTCOME 2: The DS FA Bn commander, other decision makers within the brigade support area (BSA), and the DS FA Bn staff receive, evaluate and process timely and accurate battlefield information during mission execution.

Task Elements

Component A. The DS FA Bn CPs acquire accurate battlefield information during the execution of the battle.

2. **The direct support field artillery battalion commander, with staff assistance, commands, controls, and synchronizes the field artillery cannon battalion fire support operations.** [TRADOC Pam 11-9, Section IV; Battle Command, pp. 43 and 65; ARTEP 6-115-20-MTP; FM 34-130, Chap 2; FM 6-20-40, Chap 2; FM 101-5, Chap 3, 5, App J]
 - 2a. The DS FA battalion CPs acquire information to assist the DS FA battalion commander. [TRADOC Pam 11-9, Chap 7 and App D]
 - 2a1 The DS FA battalion staff members, operating out of the DS FA battalion tactical operations center(TOC) directed by the DS FA battalion commander or the DS FA battalion standing operating procedure (SOP), obtain information during the execution of the battle that is:
 - a) Critical in assisting the DS FA battalion commander to integrate and coordinate execution of fire support for the brigade. [FM 101-5, pp. 6-33, 6-34]
 - b) Focused on satisfying the DS FA battalion commander's critical information requirements (CCIR), priority intelligence requirement (PIR), and information requirement (IR). [FM 101-5, pp. 6-8, 6-11, 6-16, and C-4]
 - 2a2 The DS FA battalion S3 manages the flow of information in the DS FA battalion TOC and establishes a system to keep the DS FA battalion commander informed. [FM 101-5, pp. 6-2, 6-11, 6-34; ARTEP 6-115 MTP, Task 06-3-01-2110]
 - 2a3 All DS FA battalion staff officers, LNOs, and subordinate leaders obtain information; they commonly: [FM 101-5, pp. 3-84, C-4, Chap 6, App A]
 - a) Focus information collection according to CCIR, PIR, and IR, and immediately communicate any response to CCIR to the DS FA battalion commander, executive officer (XO), and S3. [FM 101-5, pp. 6-8, 6-11, 6-16, C-4]

- b) Obtain information relevant to fulfilling their areas of responsibility for the DS FA battalion's execution of fire support for the brigade battle in order to: [FM 101-5, pp. 6-33, 6-34]
 - (1) Monitor and modify activities as necessary.
 - (2) Verify/modify coordination between the DS FA battalion and adjacent units.
- c) Provide appropriate recommendations to the DS FA battalion commander relative to their functional areas. [FM 101-5, pp. 6-33, C-2]
- d) Continually coordinate with each other personally and with external headquarters to exchange needed information. [FM 101-5, pp. 3-84, App A]

2a4 The DS FA battalion command sergeant major (CSM) obtains information during visits and inspections, and advises the DS FA battalion commander on: [author note (AN)]

- a) Morale, discipline, and adherence to standards by DS FA battalion soldiers.
- b) Capability of the DS FA battalion to sustain fire support.
- c) Assessment of the combat service support (CSS) system.
- d) Assessment of the welfare of DS FA battalion soldiers.
- e) Other duties or information requested by the DS FA battalion commander.

2a5 The DS FA battalion S2 section obtains intelligence information related to integrating and coordinating fire support for the brigade: [FM 101-5, pp. C-7, C-8; FM 34-130, Chap 2]

- a) Information from brigade S2's intelligence products and DS FA battalion staff: [FM 6-20-1, pp. 3-10, 3-12]
 - (1) Changes from the DS FA battalion commander to guidance and mission concept, and his requirements for intelligence information determined during delivery of fires, and the assessment of battle damage and target attack criteria.
 - (2) Intelligence summaries (INTSUMs) and spot reports from brigade, DIVARTY, and division staff.
 - (3) Information from brigade, DIVARTY, and adjacent units based on previously submitted information queries.
 - (4) OPSEC reports from the DS FA battalion S3/operations section and subordinate units which contribute to the analysis of DS FA battalion security posture.
 - (5) Updates from the brigade S2 on enemy activity based on reports from the divisional military intelligence battalion.
 - (6) Information on the current situation learned by eavesdropping on brigade, DIVARTY, and adjacent unit command, operations, and intelligence (O&I) nets.
 - (7) Information from the battalion commander in his role as FSCoord.
 - (8) Information from the brigade FSO, Bn task force (TF)/company FSO, and respective FSEs.

- b) From subordinate units: [ARTEP 6-115-MTP, Task 06-3-01-2512]
 - (1) Information from FIST/FSO/combat observation/lasing team (COLT) teams.
 - (2) Information from survey parties.
 - (3) Information from battery defense observation posts/listening posts.
 - (4) Information from battery advance parties and position area reconnaissance.
 - (5) Information from radars attached to or organic to or otherwise supporting the DS FA battalion.
- c) From DS FA battalion special staff officers. [FM 101-5, App A]
- d) From LNOs from/to higher, adjacent, and supporting units. [FM 101-5, App L]
- e) Information from other sources such as:
 - (1) Aerial photographs.
 - (2) Prisoners, deserters, and civilian population.
 - (3) Electronic warfare (EW), radars, and sensors.
 - (4) Unmanned aerial vehicles (UAV).
 - (5) Tracking of HPTs by brigade collection assets.
 - (6) Battle damage assessment (BDA) and post strike analysis of targets attacked.

2a6 DS FA battalion S3 section obtains operations information related to integrating and coordinating fire support for the brigade (e.g., changes to mission, enemy, troops, terrain and time (METT-T), and status of battlefield operating system(s) (BOS)). [FM 101-5, pp. C-8, C-9; ARTEP 6-115-MTP, Task 06-3-01-2120]

- a) From the brigade commander and staff. [ARTEP 6-115-MTP, Task 06-3-01-2110, 2120]
 - (1) Direction from the brigade commander to the FSCOORD or brigade FSO pertaining to:
 - (a) Changes to mission concept or details of the plan.
 - (b) Requirements for information determined during battle.
 - (c) Other guidance and directives.
 - (2) FRAGOs/WARNOs from brigade.
 - (3) Situation updates from brigade and DIVARTY staff.
 - (a) SITREPs.
 - (b) Responses on queries and requests submitted by the DS FA battalion.
 - (c) Changes to the brigade situation which necessitate changes to the DS FA battalion OPSEC posture.
 - (d) Changes to the enemy situation (e.g., enemy reconnaissance activity, EW activity).
 - (e) Changes to requirements for support provided such as meteorology, radar, and positioning of general support (GS) artillery.
 - (4) Division and corps units allocated terrain in the brigade area of operations (AO).

- b) From subordinate DS FA battalion units. [ARTEP 6-115-MTP, Task 06-3-01-2110, 2150]
 - (1) Reports from subordinate DS FA battalion units.
 - (a) Reports of reconnaissance of position areas.
 - (b) Enemy contact.
 - (c) Current and projected strength and combat power.
 - (d) Battery XO reports.
 - (e) OPSEC reports.
 - (f) Results of local security operations.
 - (2) Requests for resources from subordinate DS FA battalion units based on their mission analyses and determination of their needs to accomplish their assigned tasks.
 - (3) Recommendations from battery commanders on changes to the field artillery support plan (FASP) based on their current status and projected status.
 - c) From DS FA battalion staff officers and LNOs. [ARTEP 6-115-MTP, Task 06-3-01-2120; FM 101-5, App A]
 - (1) Information from the DS FA battalion S2 and intelligence section which confirms or refutes the operations estimate of the situation required to achieve the DS FA battalion commander's intent.
 - (2) Updates from the DS FA battalion S1 and S4.
 - (a) Personnel and unit status.
 - (b) Vehicle and equipment status.
 - (c) Status of all classes of supply.
 - (3) Updates from the DS FA brigade/battalion signal officer (BSO) on the status of DS FA battalion communications links and systems.
 - (4) Updates from the DS FA battalion chemical officer (CMLO) on the status and planned employment of chemical units.
 - d) Brigade FSE, DS FA Bn staff, Bn TFs FSOs, and other elements operating in the Bde AO submit reports necessary to deconflict terrain requirements. [FM 101-5, Chap 3]
- 2a7 The DS FA battalion FDO and FDC section obtain information related to integrating and coordinating fire support for the brigade. [ARTEP 6-115-MTP, Task 06-3-02-2320; FM 6-20-1 pp. 3-3; FM 6-40, TC 6-40A]
- a) Changes from the DS FA battalion commander, DS FA battalion S3, and brigade FSO to brigade commander's guidance and mission concept and requirements for information to assist in the development of the DS FA battalion commander's criteria.
 - b) Intelligence information from the DS FA battalion S2, brigade FSE, and DIVARTY S2 via IFSAS/AFATDS artillery target intelligence (ATI) files.

- c) Changes from the brigade FSO, DS FA battalion S3, and Bn TF FSOs to preplanned and scheduled fires as a result of changes to the brigade tactical situation.
- d) Changes to firing parameters.
 - (1) Meteorology updates.
 - (2) Survey refinements.
 - (3) Registration data.
 - (4) Target location information.
- e) Updated information from battery FDCs.
- f) Requirements for subsequent attack of HPTs based on BDA provided by the S2.

2a8 The brigade FSCoord, brigade FSO, and brigade FSE section obtain fire support information related to integrating and coordinating fire support for the brigade. [FM 6-20, pp. 2-22, 2-23; FM 6-20-40, Chap 4; ARTEP 71-3-MTP, Task 71-3-9002/1b, 9003/1a, 9004/1a]

- a) Changes from the brigade commander to guidance, mission concept, and information requirements.
- b) Changes to the tactical situation.
- c) Intelligence information from the DS FA battalion S2, brigade S2, division FSE, and DIVARTY TOC.
 - (1) Enemy capabilities to attack the DS FA battalion with direct or indirect fires.
 - (2) Responses to information and intelligence queries previously submitted by the DS FA battalion.
 - (3) Target acquisition assets and plans related to tracking of HPTs.
- d) FA status from DS FA battalion S3.
 - (1) Current and projected locations of DS FA battalion and reinforcing units.
 - (2) Current and projected unit weapons status.
 - (3) Current and projected ammunition status.
- e) FA status from DIVARTY and division FSE.
 - (1) Organization for combat (including general support [GS], general support reinforcing [GSR] FA).
 - (2) Locations and status of GS and GSR batteries and platoons.
 - (3) Status and locations of counter-battery radars.
 - (4) Status and timing of meteorology support.
 - (5) Division or corps directed FSCM.
- f) Task organization, personnel and equipment status, and status of execution of fire support plans from Bn TF FSOs.
 - (1) COLTs.
 - (2) FISTs.
 - (3) Mortars.

- (a) Mortar tubes and vehicles.
 - (b) Personnel.
 - (c) Locations of sections and FDCs.
 - (d) Ammunition status.
 - 1 Ammunition types.
 - 2 Ammunition quantities.
- g) Bottom-up refinements regarding projected locations, targets, final protective fires (FPFs), FSCM, and timelines from:
 - (1) Maneuver Bn TF FSOs.
 - (2) Scout platoons.
 - (3) COLTs and other observers.
- h) Availability and locations of EW assets from the DS FA battalion S2.
- i) Information necessary to refine plans for coverage of obstacles and adjustments to family of scatterable mines (FASCAM) employment from the brigade engineer.
- j) Fire support requirements from the DS FA battalion S4 and forward support battalion (FSB) commander to support the BSA.

2a9 The DS FA battalion reconnaissance and survey officer (RSO) obtains information concerning the DS FA battalion survey operations regarding integrating and coordinating fire support for the brigade. [ARTEP 6-115-MTP, Task 06-8-02-2700; FM 6-2, pp. 15-13, 14]

- a) Changes from the DS FA battalion commander on survey priorities.
- b) Intelligence data from the DS FA battalion S2.
 - (1) Enemy activity affecting survey operations.
 - (2) Impact of weather and terrain on survey capabilities.
 - (3) Requirements for survey to link sensor information.
 - (4) Impact of nuclear, biological, and chemical (NBC) hazards on survey operations.
- c) Information from the DS FA battalion S3.
 - (1) Status of movement of the DS FA battalion and reinforcing units that may affect survey operations.
 - (2) Changes to task organization that affect survey priorities.
 - (3) Additional survey requirements from the brigade.
- d) Status of DS FA battalion survey teams.
 - (1) Equipment.
 - (2) Personnel.
 - (3) Response to timelines.

- 2a10 The DS FA battalion CMLO obtains information concerning friendly and enemy NBC status related to integrating and coordinating fire support for the brigade. [ARTEP 6-115-MTP, Task 03-3-C201, C202]
- a) Changes from the DS FA battalion commander to guidance, mission concept, and information requirements.
 - b) NBC warning and reporting system updates from the brigade and DIVARTY.
 - c) Status and location updates for NBC equipment and supplies from subordinate units and the DS FA battalion S4.
 - d) Status and location of decontamination and reconnaissance assets from the brigade CMLO.
 - e) NBC monitoring and surveillance reports from subordinate DS FA battalion units.
 - f) Information from the DS FA battalion S2 and intelligence section which confirms or refutes the estimate of NBC threat and requirements.
 - g) Changes to brigade and subordinate DS FA battalion units' plans in terms of projected locations, decontamination requirements, and timelines.
- 2a11 The DS FA BSO and communications section obtain information concerning DS FA battalion communications requirements and capabilities related to integrating and coordinating fire support for the brigade. [ARTEP 6-115-MTP, Task 06-8-01-4000, 06-4-01-4800, 06-1-01-4100]
- a) Changes from the DS FA battalion commander to guidance, mission concept, and information requirements.
 - b) Status of communications links from DS FA battalion CPs to brigade, DIVARTY, reinforcing units, and other major subordinate command CPs.
 - c) Updates from subordinate DS FA battalion units on communications status.
 - (1) Status of communications links from DS FA battalion CPs.
 - (2) Equipment (e.g., secure and non-secure, digital, voice).
 - (3) Signal operating instructions (SOI).
 - (4) Availability of subordinate unit communications personnel and equipment.
 - d) Information from the DS FA battalion S2 and intelligence section.
 - (1) Information which confirms or refutes the estimate of communications requirements.
 - (2) Updates enemy electronic and communication capabilities that may impact on the use of directional antennae and net discipline.
 - e) Status reports from DS FA battalion retransmission (retrans) stations.
 - (1) Positioning.
 - (2) Equipment serviceability and capability.
 - (3) Communication ranges and dead spaces.

- f) Information from the DS FA battalion XO and DS FA battalion S3 about changes to proposed DS FA battalion CP locations and projected timelines.
- g) Changes to Bn TF and subordinate units' plans in terms of projected locations and timelines.

2a12 The DS FA battalion S1 section obtains information related to integrating and coordinating fire support for the brigade:
[ARTEP 6-115-MTP, Task 12-1-C404; FM 101-5, p. C-5; FM 6-20-1, pp. 7-7, 7-21, 7-22]

- a) Changes from the DS FA battalion commander to guidance, mission concept, priorities, and requirements for information.
- b) Personnel status from subordinate and supporting units.
 - (1) Personnel status reports.
 - (2) Critical military occupational specialties and grade shortages.
 - (3) Absent without leave (AWOL).
 - (4) Casualty feeder reports.
- c) Personnel information from DIVARTY S1 and division adjutant general
 - (1) Availability of replacements and replacement operations. (including weapons system replacement operations [WSRO]).
 - (2) Postal services.
 - (3) Morale, welfare, and recreation (MWR) support.
- d) Morale and discipline indicators from DS FA battalion special staff officers and battery commanders
 - (1) Battery reports of stragglers, AWOLs, and absences from place of duty.
 - (2) Sick call and stress casualties from the DS FA battalion surgeon.
 - (3) Advice from the CSM on the state of morale and discipline.
- e) FSB support capabilities from the FSB support operations center.
- f) Information from the supported brigade MP platoon leader concerning EPW processing and evacuation requirements.

2a13 The DS FA battalion S4 section obtains information related to integrating and coordinating fire support for the brigade.
[ARTEP 6-115-MTP, Task 06-3-01-6430; FM 101-5, p. C-9; FM 6-20-1, pp. 7-10, 7-11]

- a) Changes from the DS FA battalion commander to guidance, mission concept, priorities, and information requirements.
- b) Information from the DS FA battalion S2 and intelligence section which confirms or refutes estimates of the logistical situation.
- c) Logistics reports from batteries and supporting units.
 - (1) Status of supplies by class of supply.
 - (2) Equipment readiness.

- (3) Task organization and status of CSS elements:
 - (a) FSB.
 - (b) Field train CP/battalion supply operations center (BSOC).
 - (c) Combat trains CP/administrative and logistics center (ALOC).
 - (d) Maintenance, transportation, and supply updates from the brigade S4 and FSB support operations center (including plans for WSRO).

2a14 The DS FA battalion surgeon obtains information related to integrating and coordinating fire support for the brigade. [ARTEP 6-115-MTP, Task 08-3-C003; FM 6-20-1, pp. 7-23, 7-24]

- a) Changes from the DS FA battalion commander to guidance, mission concept, priorities, and information requirements.
- b) Updates on capabilities versus requirements for treatment.
 - (1) Patient load and disposition.
 - (2) Mass casualty situations requiring external assistance.
- c) Capabilities of ground evacuation and aerial medical evacuation (MEDEVAC) from the brigade surgeon.
- d) Class (CL) VIII supply status.
 - (1) Updates from the division medical supply officer on availability
 - (2) On-hand quantities to meet current and anticipated requirements
- e) Additional medical support capability from the division main support battalion (MSB).
- f) Supporting unit medical support status.
 - (1) Positioning and readiness of medical assets.
 - (2) Capability to receive, triage, and evacuate casualties.
- g) Changes to supporting unit plans in terms of projected locations and times.

2a15 The DS FA battalion headquarters and headquarters battery (HHB) commander obtains information necessary to support the TOC and the ALOC. [FM 6-20-1, pp. 3-1, 3-6, 7-1-10]

- a) Obtains changes to the DS FA battalion commander's guidance, mission concept, and information requirements from the DS FA battalion S3.
- b) Obtains information from the DS FA battalion S2 and intelligence section which confirms or refutes enemy threat to the TOC or ALOC.
- c) Obtains anticipated movement times and projected locations for the TOC and ALOC from the DS FA battalion XO and S3.
- d) Obtains information from attachments and supporting agencies concerning space, supply, and support requirements.

- 2c. DS FA battalion CPs and staff communicate information [FM 6-20-1, pp. 3-1 - 3-3; FM 101-5, Chap 5]
- 2c1 All DS FA battalion CPs and staff disseminate information. [FM 6-20-1, pp. 3-1 - 3-3]
 - a) Provide briefings to the DS FA battalion commander on the status of mission.
 - (1) Focus briefings on CCIR.
 - (2) Staff provides updates based on commander's requirements as FSCoord and DS FA battalion commander.
 - b) Each staff representative communicates critical information needed to:
 - (1) Coordinate DS FA battalion actions and plans.
 - (2) Monitor the situation.
 - (3) Direct DS FA battalion actions.
 - c) All DS FA battalion staff officers remain alert for and ensure that critical information they receive is passed to other DS FA battalion staff officers who require the information as soon as it is received.
 - d) Continually assess and report risks and hazards to mission accomplishment and force protection.
- 5. **The direct support field artillery battalion command posts manage and maintain command, control, and communications.**
- 5a. DS FA battalion CPs manage means of communicating information. [FM 101-5, Chap 6, App B, L; ARTEP 6-115-MTP, Task 06-3-01-2150, 2160, 2120]
- 5a1 The DS FA battalion commander employs an "information manager" from the staff (usually the DS FA battalion S3): [FM 101-5; Chap 6, App B]
 - a) Facilitates the flow of information and communication of information from staff members and subordinate units.
 - b) Outlines and monitors the performance and responsibilities of the staff in processing mission information, status of FA units, and the DS FA battalion commander's information requirements.
 - d) The assistant S3 manages the operations of the TOC and the operations section when the S3 is not available. [FM 6-20-1, p. 3-2]
 - (1) Coordinates and integrates staff activities.
- 5a2 LNOs provide information to the DS FA battalion commander and staff and to the headquarters they represent. [FM 101-5, App L]
 - a) Responses to specific questions asked of LNOs.
 - b) Unit locations, activities, capabilities, status, and intentions.

- c) Coordination problems.
 - (1) Inability to reach/meet with specific people or staff positions.
 - (2) Receipt of information which invalidates or should change estimates and plans.
- d) Issues.

5a3 All DS FA battalion CPs eavesdrop on lower and adjacent unit command and O&I nets for information.[FN]

5a4 All DS FA battalion CPs ensure that information on the situation is communicated between staff officers during shift changes. [FM 71-3, p. 3-25]

- a) Enemy activities.
- b) Status of subordinate units.
- c) On-going staff actions which must be monitored, tracked, and completed.
- d) Timelines and suspense which must be met.
- e) Planning for future missions.

5a5 All DS FA battalion CPs communicate routine information per the DS FA battalion TSOP. [FM 101-5, p. 6-5]

5a6 Trains CPs (ALOC/BSOC).

- a) DS FA battalion XO is the second in command of the battalion. He is the senior staff officer of the unit and serves as the primary logistician. [FM 6-20-1, p. 3-4]
 - (3) Makes face-to-face contact with his counterparts on the brigade, DIVARTY, and FSB staff and ensures that the DS FA battalion is supported with a minimum of confusion or lost effort.
- b) The ALOC positions during mission execution to conduct rapid movement of emergency CL III and V forward to support the DS FA battalion. [FM 6-20-1, p. 7-8]
 - (1) Monitors the DS FA battalion A/L net to determine subordinate unit CSS requirements.
- d) The field trains BSOC locates with the BSA and coordinates all requirements for battalion organic and attached elements with all units in the BSA and with parent units as required.

6. **The direct support field artillery battalion commander provides leadership and directs planning to ensure that the fire support system is sustained.** [FM 6-20-1, Chap 7; FM 6-20, pp. 3-5 - 3-6]

- 6d. The DS FA battalion commander directs the staff to assist in providing support for the brigade during the brigade consolidation. Normal staff operations continue with emphasis on the following: [FM 101-5, Chap 4; Battle Command Techniques and Procedures, Chap 2, 3; FM 71-3, App H]
- 6d1 The DS FA battalion XO:
 - a) Monitors refit and resupply operations of the batteries.
- 6d3 The DS FA battalion S3:
 - a) Continues to monitor the current situation.
 - b) Continues to monitor all activities in the brigade deep battle area and supervises the activities in the brigade rear battle area.
 - h) Monitors status of DS FA battalion units.

Component B. The DS FA Bn CPs evaluate information and update products during the execution of the battle.

- 1. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
- 1b. The DS FA battalion commander ensures that each battlefield operating system (BOS) is integrated and coordinated with other BOS during delivery of fires and execution of battle. [FM 101-5, pp. H-36 - H-42]
- 1b1 The DS FA battalion commander integrates intelligence requirements with the other BOS.
 - a) The DS FA battalion commander, brigade targeting officer, brigade FSO, and DS FA battalion S2 review information to ensure that FASP and decision aids are revised on a continuous basis as the battlefield situation changes.
 - (1) Decision support template (DST).
 - (2) Enemy situation template (SIT TEMP).
 - b) The DS FA battalion S2 processes information and disseminates updated intelligence of enemy situation, terrain, and weather.
 - (1) Descriptions and locations of obstacles, fortifications, and known or potential contaminated areas and enemy NBC delivery systems.
 - (2) Threat locations (CPs, weapons systems), strengths, capabilities, probable boundaries, known vulnerabilities, and threat probable COAs and intentions.

- c) The DS FA battalion commander manages the detection effort to acquire and engage HPTs.
 - (1) Verifies that means are available to detect and track HPTs.
 - (2) Ensures that responsibility for the attack of critical HPTs has been assigned and that the responsible agency is prepared to execute with the assigned trigger.
 - (3) Confirms a backup attack system for each critical HPT.
 - (4) Verifies that assessment assets linked to critical HPTs are available as needed.
 - (5) Informs assessment asset managers as HPT refinements or attack times and measures change.
 - (6) Verifies that target intelligence from assessment is incorporated into overall enemy situational development.

- 1b2 The DS FA battalion commander integrates and coordinates fire support with maneuver.
 - a) The FSEM is reviewed to ensure that adjustments and refinements in the maneuver plan are continuously addressed by refinements in the fire support plan if necessary.
 - b) The attack guidance matrix (AGM) is reviewed and updated as necessary to reflect any changes in the brigade commander's guidance for attack of critical targets by phase of maneuver or as a result of changes in the maneuver plan.
 - c) FSCMs are reviewed to ensure that the rapid engagement of targets is facilitated while simultaneously safeguarding friendly forces.
 - d) Supported brigade targeting process information requirements are met with current information.

- 1b3 The DS FA battalion commander integrates and coordinates fire support with the other BOS.
 - a) The FA support plan (FASP) is coordinated with the brigade fire support plan.
 - (1) Changes and refinements to the fire support plan as a result of changes in the tactical situation or as a result of changes to the brigade plan must be integrated through FSCMs with the maneuver plan.
 - (3) The DS FA battalion commander must ensure that procedures are in place that allow the staff to quickly assess and respond to new information.
 - (4) The DS FA battalion S3 and S2 in conjunction with the brigade fire support cell will assess new information for the following:
 - (a) Accuracy and reliability.
 - (b) Whether target information meets target selection standards.
 - (c) Whether the new information requires substantial changes to the existing fire support plan.
 - (d) The best method of attack (FA mortars, close air support [CAS], etc.)
 - (5) Staff members, based on their assessments, will:
 - (a) Change the schedule of fires or preplanned target list by substituting higher priority targets.

- (b) Delete suspected targets.
 - (c) Designate on-call targets.
 - (d) Shift fires from planned targets.
- b) The brigade fire support plan is reviewed for refinements, to include:
 - (1) Shifts in priorities of fires and timing for preplanned and targets of opportunity engagements in each phase of the operation.
 - (2) Repositioning of primary and back-up observers to allow observation on all priority targets and engagement areas as information on the enemy changes.
 - (3) Priority of fires and priority targets for each phase of the mission, including method for prioritizing calls for fire.
 - (4) Artillery target groups and series are refined and updated based on the tactical situation and staff assessment of information received.
 - (5) Employment concept for special munitions (i.e., FASCAM, smoke, dual purpose improved conventional munitions [DPICM], Copperhead) is synchronized with any changes to the maneuver plan.
 - (6) CAS and Army aviation employment are coordinated with field artillery fires by implementation of airspace coordination areas (ACAs).
 - (7) CAS, Army aviation, and field artillery support are synchronized for the conduct of joint air attack team (JAAT) missions and to provide suppression of enemy air defenses (SEAD) fires during the battle.
 - (8) Control measures and restrictions are modified to support changes in the tactical situation.
 - (9) Electronic warfare (EW) attack measures are integrated with lethal attack measures to increase the synergistic effects against the targets.
 - (10) Naval surface fires, as available, are integrated with all other lethal and nonlethal attack measures.
- 1b4 The DS FA Cdr integrates and coordinates mobility/counter mobility/ survivability with the other BOS.
 - a) Verifies that fires are planned to cover all obstacles and that responsibility for triggering those fires is coordinated between the maneuver forces and their fire support representatives.
 - b) Coordinates requirements for delivery of FASCAM with battery movement plans, requirements to service other HPTs, and ammunition resupply requirements.
- 1b5 The DS FA battalion commander integrates and coordinates air defense with the other BOS.
 - a) Verifies that the DS FA battalion S2 has conducted a three dimensional intelligence preparation of the battlefield (IPB).
 - b) Verifies that the DS FA battalion S3 has integrated that IPB into the position area overlay and updates the position area overlay as the air threat changes or air defense artillery (ADA) positions change.

- c) Verifies that the DS FA battalion S3 has considered incidental coverage by ADA elements deployed in the brigade area in the development of the FASP.

1b6 The DS FA battalion commander integrates and coordinates CSS with the other BOS.

- a) Verifies that CSS assets are positioned and are providing planned supply, medical, and maintenance support to the DS FA battalion during the mission, without interfering with the DS FA battalion delivery of fires.
- b) Verifies that push packages of emergency resupplies are configured and ready.
- c) Reviews designated main supply route (MSR) and alternate supply routes (ASRs) to ensure that CSS assets continue to provide timely response.
- d) Verifies that medical assets and operations are supporting the DS FA battalion.
- e) Ensures that vehicles and equipment are being recovered, repaired, and returned to the user or delivered to higher maintenance echelons.
- f) Verifies maintenance assets are task organized and are providing support.
- g) Verifies that unit maintenance collection points (UMCPs) are in position and are providing support necessary to sustain fires.

1b7 The DS FA battalion commander integrates and coordinates command and control with the other BOS.

- a) The DS FA battalion commander monitors the DST, synchronization matrix, AGM, and FSEM to ensure that:
 - (1) Modifications to the brigade plan and fire support plan are integrated.
 - (2) Mission details to achieve the brigade commander's intent are adequately reflected.
 - (3) Fire support is massed:
 - (a) Against the enemy.
 - (b) At the decisive point and time as visualized by the brigade commander.
- b) Command and control measures are reviewed by the DS FA battalion commander, staff, and subordinate leaders to ensure that changes in the tactical situation are incorporated into all DS FA battalion documents; at minimum:
 - (1) Maneuver graphics and control measures (e.g., phase lines, objectives, routes, check and coordination points).
 - (2) Signals and quick execution code words.
 - (3) DST.
 - (4) Synchronization matrix.
 - (5) FSEM and FSCM.
- c) CPs and staff continue to support the mission.
 - (1) Receive, process, and disseminate information.
 - (2) Move and position to support the DS FA battalion commander during the battle.

- (3) Coordinate and integrate combat multipliers.
 - (4) Exchange information with brigade HQ, DIVARTY HQ, and CP of reinforcing FA battalion.
- 2. **The direct support field artillery battalion commander, with staff assistance, commands, controls, and synchronizes the field artillery cannon battalion fire support operations.** [TRADOC Pam 11-9, Section IV; Battle Command, pp. 43 and 65; ARTEP 6-115-20-MTP; FM 34-130, Chap 2; FM 6-20-40, Chap 2; FM 101-5, Chap 3, 5, App J]
- 2b. The DS FA battalion CPs evaluate acquired information, update products, and maintain status related to integrating and coordinating fire support for the brigade. [FM 6-20-1 p. 3-1; FM 101-5, Chap 6; ARTEP 6-115-MTP, Task 06-1-02-2500]
- 2b1 The DS FA battalion S2 and intelligence section evaluate intelligence information, and update IPB products. [ARTEP 6-115-MTP, Task 06-1-02-2500]
 - a) The DS FA battalion intelligence section tracks the enemy.
 - (1) Location (confirmed and suspected).
 - (2) Activity.
 - (a) Indications of possible intent.
 - (b) Enemy reactions to friendly battle techniques.
 - (c) Specific enemy actions triggered by friendly actions or events.
 - (3) Adherence to, or deviation from, postulated enemy COAs.
 - (4) Enemy losses are analyzed to determine strengths and capabilities.
 - b) The DS FA battalion S2 and intelligence section evaluate intelligence information. [ARTEP 6-115-MTP, Task 06-3-01-2512]
 - (1) Changes to guidance, direction, and information.
 - (2) Desired DS FA battalion endstates compared to current intelligence situation, trends, and IPB.
 - (3) Information which confirms or refutes IPB information relative to achieving the DS FA battalion commander's intent:
 - (a) Updates PIR related to fire support. [FM 6-20-1, p. 3-5]
 - (b) Named areas of interest (NAIs) and targeted areas of interest (TAIs).
 - (4) Positioning of assets to detect and track HPTs, provide observation for attack of HPTs, and provide report of target effects for BDA on HPT following attack.
 - (5) Indicators of changes in enemy intentions or reactions:
 - (a) NBC weapons usage or activity as prelude to offensive operations.
 - (b) Presence of reconnaissance forces as a prelude to attack.

- (c) Conduct of counter-reconnaissance operations as an indicator of defense.
 - (d) Presence and massing of maneuver forces as the initiation of offensive operations.
 - (e) Increase of enemy helicopter activity as an indication of air assault operations.
 - (f) Increase in enemy fighter activity and massing of transport fixed wing aircraft as indicators of airborne assault or the start of offensive operations.
 - (g) Increase of enemy field artillery and rocket unit activity.
 - (h) Presence and nature of activity of enemy engineer systems.
 - (i) Meaconing, interference, jamming, interception and other changes in enemy electromagnetic activity as prelude to offensive operations.
- c) The DS FA battalion S2 and intelligence section update intelligence products. [ARTEP 6-115-MTP, Task 06-3-01-2510,2511]
- (1) Updated intelligence estimate (may or may not be in written form).
 - (2) SIT TEMP.
 - (3) Event template.
 - (4) MCOO in coordination with the DS FA battalion S3.
 - (5) Intelligence portion of the DST.
 - (6) Intelligence collection plan.
 - (7) Intelligence database.
 - (a) Enemy order of battle (OB).
 - (b) ATI file.
 - (8) Intelligence overlays and graphics.
 - (9) DS FA battalion INTSUMs.
 - (10) Intelligence journal/log.
 - (11) Ensures all subordinate and reinforcing elements are kept informed of the enemy situation.
 - (a) Firing batteries.
 - (b) Survey teams.
 - (c) Retransmission stations.
 - (d) Wire teams.
 - (e) Radars.
 - (f) ALOC.
 - (g) BSOC.
 - (12) Coordinates intelligence aspects of DS FA battalion ground and air defense plans with batteries. [FM 6-20-1, p. 3-5]

- (13) Advises the DS FA battalion S3 on employment of any target acquisition resources organic or attached to the DS FA battalion and recommends sectors of search. [FM 6-20-1, p. 5-1]

2b2 The DS FA battalion S3 section evaluates operational information and updates operational products. [ARTEP 6-115-MTP, Task 06-3-01-2110, 2120, 2150]

- a) The DS FA battalion S3 section evaluates information. [ARTEP 6-115-MTP, Task 06-3-01-2120]
 - (1) Changes to guidance/direction and information.
 - (2) Information which confirms or refutes IPB information which may affect achieving the DS FA battalion commander's intent.
 - (3) Desired DS FA battalion endstates are compared with what is possible based on the current DS FA battalion operational status, FASP, and trends.
 - (a) Battery status.
 - (b) CSS status.
 - (4) Impact of changes to the brigade maneuver plans on the FASP.
 - (5) Results of coordinating plans with brigade and subordinate fire support units. [FM 6-20-1, p. 3-5]
 - (6) DS FA battalion OPSEC based on information received from brigade and internal DS FA battalion sources.
- b) The DS FA battalion S3 section updates operations products. [ARTEP 6-115-MTP, Task 06-3-01-2110, 2120, 2150]
 - (1) Maintains situation map (SITMAP), target planning maps, and fire support overlays, which reflect: [ARTEP 6-115-20-MTP, Task 06-3-02-1130, 1190]
 - (a) Movement, routes, and locations of collection and target acquisition assets. [FM 6-20-40, p. 2-23].
 - (b) Current friendly and enemy situation. [ARTEP 6-115-20-MTP, Task 06-3-02-1130, 1190]
 - (c) Unit boundaries. [ARTEP 6-115-20-MTP, Task 06-3-02-1130, 1190].
 - (d) Locations of maneuver and artillery support elements. [ARTEP 6-115-20-MTP, Task 06-3-02-1130, 1190]
 - (e) FSCM. [ARTEP 6-115-20-MTP, Task 06-3-02-1130, 1190]
 - (f) FASCAM. [ARTEP 6-115-20-MTP, Task 06-3-02-1130, 1190]
 - (2) Operational portion of the DST.
 - (3) Synchronization matrix.
 - (4) FSEM.
 - (5) MCOO based on input from the DS FA battalion S2 and CMLO.
 - (6) Updated operations estimate (may or may not be in written form).
 - (7) DS FA battalion status boards and charts which track tube and ammunition status.
 - (8) DS FA battalion operations journal/log.

- 2b3 The DS FA battalion FDO and FDC section evaluate information and update FDC products. [ARTEP 6-115-MTP, Task 06-3-02-2130, 3000, 2320, 2340, 2350]
- a) The DS FA battalion FDO and FDC section evaluate information. [ARTEP 6-115-MTP, Task 06-3-02-2320]
- (1) Need to update initialization data based on changes to firing parameters.
 - (2) Refinements/changes from brigade and Bn TF FSO/FSEs.
 - (a) Fire plans.
 - (b) Target lists.
 - (c) Schedule of fires.
 - (d) FSCM.
 - (e) Target value analysis HPTs.
 - (f) Location of friendly units.
 - (3) Information from other staff officers.
 - (a) Status of survey.
 - (b) Ammunition status.
 - (c) Availability of radar.
 - (4) Information and status of batteries.
 - (a) Units in ready to fire status.
 - (b) Ammunition status.
 - (c) Latest meteorology message received.
 - (d) Determines need for registration.
- b) The DS FA battalion FDO and FDC section update fire direction products.
- (1) Changes to commander's criteria entered in IFSAS/AFATDS.
 - (2) SITMAP, FSCM, and location of friendly units.
 - (3) All initialization data and confirm positive check of firing data.
 - (4) Firing parameters based on updated meteorology messages.
 - (5) All fire plans, schedule of fires, groups of fires, FPFs, and other defensive fires with most recent firing data.
 - (6) Current target overlay. [FM 6-20-1, p. 3-5]
 - (7) Planned targets and targets of opportunity. [FM 6-20-1, p. 3-5]
 - (8) Observer locations and status.
 - (9) Requests and inputs including firing unit information, formatted response such as AFU; UPDATE; AFU; BAMOUP).

- 2b4 The brigade FSO and brigade FSE section evaluate information and update fire support products. [ARTEP 71-3-MTP Task 71-3-9001, 9002]
- a) The brigade FSO and FSE sections evaluate information. [ARTEP 71-3 MTP, Task 71-3-9001/2,3]
 - (1) Changes to guidance/direction.
 - (2) Desired brigade endstates with what is possible based on current fire support situation and trends.
 - (3) Changes to the brigade fire support plan which ensure synchronization with Bn TF fire support plans.
 - (4) Changes to FA task organization and locations of GS and GSR FA units.
 - (5) Information which confirms or refutes IPB information relative to achieving the brigade commander's intent.
 - (6) Changes to engineer FASCAM requirements in the fire support plan.
 - (7) Changes to Army aviation and Air Force requirements which cause refinements to the fire support plan.
 - (8) FSCM imposed by division or other headquarters.
 - (9) Status of fire support systems due to battle loss to include:
 - (a) Howitzers.
 - (b) FIST/FIST-vehicle (FIST-V).
 - (c) COLT/FIST-V.
 - (d) Target acquisition systems.
 - (10) Changes which should lead to convening the targeting and/or Army airspace command and control (A2C2) teams.
 - b) Update fire support products. [ARTEP 71-3-MTP, Task 71-3-9002]
 - (1) Updated fire support estimates (may or may not be in written form).
 - (2) FSEM.
 - (3) Target lists.
 - (4) HPT list.
 - (5) Fire support graphics.
 - (6) Priority targets.
 - (7) FSCM.
 - (8) Observation plan.
 - (9) Aviation plan (with brigade air liaison officer (ALO) and Army aviation LNO):
 - (a) ACAs.
 - (b) SEAD.
- 2b5 The DS FA battalion RSO evaluates information and updates DS FA battalion survey products. [ARTEP 6-115-MTP, Task 06-8-02-2700]

- a) The DS FA battalion RSO evaluates information. [ARTEP 6-115-MTP, Task 06-8-02-2700]
 - (1) Changes to guidance/direction, information, and priorities.
 - (2) Desired DS FA battalion endstates with what is possible based on current survey situation, status of survey teams, and trends.
 - (3) Evaluates changes to FA task organization to determine impact on survey plan.
 - (4) Evaluates changes to brigade survey priorities.
 - (5) Coordinates survey requirements directly with battery commanders. [FM 6-20-1, p. 3-5]
- b) The DS FA battalion RSO updates survey products.
 - (1) Updated survey estimate (may or may not be in written form).
 - (2) Survey plan.
 - (3) Performs general reconnaissance and observation as directed by the DS FA battalion S3 and S2. [FM 6-20-1, p. 3-5]

2b6 The DS FA battalion CMLO evaluates information and updates DS FA battalion NBC products. [ARTEP 3-4-MTP, Task 3-4-0003, 0004, 0007, 0017]

- a) The DS FA battalion CMLO evaluates information. [ARTEP 3-4-MTP, Task 3-40004, 0007]
 - (1) Changes to guidance, direction, and information.
 - (2) Desired DS FA battalion endstates with what is possible based on current NBC situation and trends.
 - (3) Information which confirms or refutes IPB information regarding achieving the commander's intent.
 - (4) Answers to intelligence queries which alter initial assessment of enemy NBC capabilities.
 - (5) Adjustments to plans from subordinate units which affect DS FA battalion NBC plans.
 - (6) Changes to divisional defensive NBC capabilities.
- b) The DS FA battalion NBC section updates NBC products. [ARTEP 3-4-MTP, Task 3-4-0003, 0017]
 - (1) Updated NBC estimate (may or may not be in written form).
 - (2) Mission oriented protective posture (MOPP) analysis.
 - (3) Enemy NBC capabilities.
 - (4) NBC equipment and supplies inventories.
 - (5) NBC overlays and graphics.
 - (6) Provides the DS FA battalion S2 with locations of contaminated areas for inclusion in MCOO.

2b7 The DS FA BSO and communications section evaluate information and update DS FA battalion communication products. [ARTEP 6-115-MTP, Task 06-5-02-4000, 06-1-01-4100]

- a) The DS FA battalion communications section evaluates information.

- (1) Changes to guidance, direction, and information.
- (2) Desired DS FA battalion endstates with what is possible based on current communication situation and trends.
- (3) Information which confirms or refutes IPB information regarding achieving the DS FA battalion commander's intent.
- (4) Answers to intelligence queries which alter initial estimate of enemy electronic and communications capabilities.
- (5) Adjustments to plans from DS FA battalion CPs and subordinate DS FA battalion units on DS FA battalion communications planning.
- (6) Results of communications checks.
- (7) Performs communications reconnaissance and survey to assist the DS FA battalion S3 in siting key elements of the DS FA battalion, to include retrans stations. [FM 6-20-1, p. 3-6]
- b) The DS FA BSO and communications section update communications products.
 - (1) Updated signal estimates (may or may not be in written form).
 - (2) Communications network overlay, area coverage overlay, and dead space overlay.
 - (3) SOI.

2b8 All DS FA battalion CSS officers (DS FA battalion XO, DS FA battalion S1, DS FA battalion S4, DS FA battalion surgeon) evaluate information and update CSS products. [FM 63-20, Chap 3, 6; FM 6-20-1, Chap 7; ARTEP 6-115-MTP, Task 06-3-01-2170, 12-1-C404, 06-3-01-6430, 08-3-C002, 06-3-01-6300]

- a) The DS FA battalion CSS officers evaluate information.
 - (1) Evaluate desired DS FA battalion endstate with current and projected personnel, maintenance, transportation, medical, and supply status.
 - (a) Adequacy of CSS for the brigade main effort.
 - (b) Adequacy of CSS for the brigade secondary effort.
 - (2) Information which confirms or refutes IPB information which may affect achieving the DS FA battalion commander's intent.
 - (3) Answers to intelligence queries requested by CSS officers which could affect the initial CSS plan.
 - (4) Adjustments to plans from subordinate and supporting units which affect DS FA battalion CSS plans.
- b) The DS FA battalion CSS officers update CSS products.
 - (1) The DS FA battalion S1 section updates personnel information. [ARTEP 6-115-MTP, Task 12-1-C404]
 - (a) Updated personnel services estimate (may or may not be in written form).
 - (b) Personnel status of subordinate and supported units.
 - (c) Casualty feeder reports.
 - (d) Personnel priorities as directed by the DS FA battalion commander.

- (2) The DS FA battalion S4 section updates logistical information. [ARTEP 6-115-MTP, Task 06-3-01-640]
 - (a) Maintenance, supply, and transportation portions of updated logistics estimates (may or may not be in written form).
 - (b) Supply:
 - 1 Usage and percent fill of combat basic loads.
 - 2 Configuration and location of immediate and emergency resupply (e.g., CL III, V) loads and push packages.
 - 3 Adequacy of CSS supply assets.
 - 4 Supply priorities as directed by the DS FA battalion commander.
 - 5 Establishment and fill of stockpiles and caches.
 - (c) Maintenance: [ARTEP 6-115-MTP, Task 06-3-01-6300]
 - 1 Number and type of equipment systems on hand and operational.
 - 2 Systems non-mission capable and repairable.
 - 3 Projections for the repair and return of fighting vehicle and other essential equipment.
 - 4 On-hand CL IX, authorized stockage list (ASL), and prescribed load list (PLL) stockage levels.
 - 5 Maintenance priorities and guidelines as directed by the DS FA battalion commander.
 - (d) Transportation:
 - 1 Schedules and priorities.
 - 2 Status of supplies, equipment, and materials requiring transport.
 - 3 Availability of ground transport assets.
 - 4 Availability of air transport assets.
 - 5 Status of logistics packages.
 - 6 Transportation recovery and back-haul plans.
 - 7 MSR and ASR traffic and route conditions.
- (3) The DS FA battalion surgeon updates medical information. [ARTEP 6-115-MTP, Task 08-3-C0002]
 - (a) MEDEVAC capabilities.
 - (b) CL VIII stocks and resupply activities.
 - (c) Reinforcement and reconstitution of medical assets.
 - (d) Disposition and capability of DS FA battalion medical assets.
 - (e) Medical priorities as directed by the DS FA battalion commander.

- 2b9 The DS FA battalion HHB commander evaluates information.
 - a) Evaluates capability to move, secure, and support the DS FA battalion CPs.

- b) Provides assessment of capabilities versus requirements to move, secure, and support the TOC to the DS FA battalion S3.

2b10 The DS FA battalion CPs maintain status. [FM 6-20-1, pp. 3-1 - 3-6]

- a) DS FA battalion TOC maintains status. [FM 6-20-1, pp. 3-1 - 3-6]
 - (1) Information which supports the DS FA battalion CCIR.
 - (2) Current and projected combat power status of subordinate units (e.g., green-amber-red).
 - (3) Current O&I map.
 - (a) Operations overlay (DS FA battalion, brigade, and reinforcing units).
 - (b) Intelligence overlay.
 - (c) SIT TEMP overlay.
 - (d) Event template overlay.
 - (e) MCOO.
 - (f) Fire support overlay.
 - (4) Status of key communications links.
 - (5) CSS overlays and information per DS FA battalion TSOP.
 - (6) Intelligence information from brigade, DIVARTY, and higher headquarters.
 - (7) Dispositions of collection assets.
 - (8) Information on external units conducting reconnaissance and surveillance (R&S) and security operations to prevent fratricide.
 - (9) Dispositions and status of patrols and other R&S and security forces.
 - (10) Status of tactical operations to ensure compliance with stated mission timelines.
 - (11) Obstacle and survivability position construction and progress as compared to timelines.
 - (12) DST.
 - (13) FSEM.
 - (14) Synchronization matrix.
 - (15) Journals/logs.
 - (16) Status of key communications links.
- b) The DS FA battalion ALOC maintains status. [FM 6-20-1, Chap 7]
 - (1) Current O&I map.
 - (a) Operations overlay (DS FA battalion, brigade, and reinforcing units).
 - (b) Rear operations, security, and threat overlay.
 - (c) Intelligence overlay.

- (d) SIT TEMP overlay.
 - (e) Event template overlay.
 - (f) MCOO.
 - (g) Fire support overlay.
- (2) DST.
- (3) CSS SITMAP and overlays.
 - (a) MSR and ASR.
 - (b) CSS locations, current and projected.
 - (c) Decontamination sites.
- (4) Synchronization matrix.
- (5) Location and status of petroleum, oil and lubricants awaiting distribution to the batteries.
- (6) Location and status of ammunition awaiting distribution to the batteries.
- (7) Location of DS maintenance contact team and recovery capability.
- c) The DS FA BSOC maintains status.
 - (1) Current O&I map.
 - (a) Operations overlay (DS FA battalion, higher, and adjacent units).
 - (b) Rear operations, security, and threat overlay.
 - (c) Intelligence overlay.
 - (d) SIT TEMP overlay.
 - (e) Event template overlay.
 - (f) MCOO.
 - (g) Fire support overlay.
 - (2) DST.
 - (3) CSS SITMAP and overlays.
 - (a) MSR and ASR.
 - (b) CSS locations, current and projected.
 - (c) Decontamination sites.
 - (4) Synchronization matrix.
 - (5) BSA security plans.
 - (6) CSS staff journal.
 - (7) Current and projected personnel and equipment status.
 - (a) Personnel strength.
 - (b) Operational readiness rate for equipment.

- (c) Status of supplies.
- (d) Casualties.
- (e) Replacement personnel status and location.
- (f) Damaged and non-mission capable vehicles and equipment.
- (8) Location and evacuation of EPW and their equipment.
- (9) Location and evacuation of displaced persons.
- (10) Status of key communications links.

2c. DS FA battalion CPs and staff communicate information [FM 6-20-1, pp. 3-1 - 3-3; FM 101-5, Chap 5]

2c1 All DS FA battalion CPs and staff disseminate information. [FM 6-20-1, pp. 3-1 - 3-3]

d) Continually assess and report risks and hazards to mission accomplishment and force protection.

4. **The direct support field artillery battalion commander directs changes to the operation or plan** [TRADOC Pam 11-9, Section IV; ARTEP 6-115-20-MTP, Task 06-2-02-1000, 06-3-02-1100, 1130-1190, 1300, 1390; Battle Command, p. 12; FM 6-20-40, Chap 1, 2; FM 101-5, Chap 2, 4]

4c. The DS FA battalion staff coordinates internally and with higher, adjacent, and supporting elements to coordinate the FRAGO. [FM 101-5, App B]

4c2 The DS FA battalion S3, at the TOC, must analyze the current FRAGO in light of current brigade, adjacent, and supporting unit OPODs to preclude conflict.

6. **The direct support field artillery battalion commander provides leadership and directs planning to ensure that the fire support system is sustained.** [FM 6-20-1, Chap 7; FM 6-20, pp. 3-5 - 3-6]

6d. The DS FA battalion commander directs the staff to assist in providing support for the brigade during the brigade consolidation. Normal staff operations continue with emphasis on the following: [FM 101-5, Chap 4; Battle Command Techniques and Procedures, Chap 2, 3; FM 71-3, App H]

6d2 The DS FA battalion S2:

a) Continues to update the intelligence estimate.

6d3 The DS FA battalion S3:

g) Together with the DS FA battalion S2 and brigade FSO, revises the fire support plan to support continuing operations.

OUTCOME 3 ASSESSMENT

OUTCOME 3: Tactically sound recommendations are developed and critical information is communicated by the DS FA Bn staff, subordinate commanders. (Use Tables 3, 4, 6, 7, and 9)

Component A. Staff and subordinate leaders provide critical information.	Adequate	Marginal	Not Adequate
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Assessment Statements

- The DS FA Bn commander, in his capacity as the brigade FSCOORD, provides critical information to the armored brigade commander.
- The DS FA Bn staff responds to requests for information from the commanders or staffs of the DS FA Bn, DIVARTY, or brigade.
- The DS FA Bn staff elements send critical information to the DS FA Bn commander.

Component B. Staff and subordinate commanders provide tactically sound recommendations.	Adequate	Marginal	Not Adequate
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Assessment Statements

- The DS FA Bn commander, in his capacity as the brigade FSCOORD, provides tactically sound recommendations to the armored brigade commander.
- DS FA Bn CPs and DS FA Bn staff members disseminate reports and recommendations to the DS FA Bn commander and to brigade and DIVARTY HQ for their information and decisions.

OUTCOME 3 DIAGNOSTIC AID

OUTCOME 3: Tactically sound recommendations are developed and critical information is communicated by the DS FA Bn staff, subordinate commanders.

Task elements support Component A and Component B, combined.

Task Elements

1. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
 - 1a. The DS FA battalion commander directs subordinate forces.
 - 1a1 The DS FA battalion commander takes actions to ensure that subordinate leaders have a clear understanding of his intent and concept. Actions include: [FM 101-5, Chap 1, 4, App B, D, H, J; Battle Command Techniques and Procedures, Chap 2, 4; Battle Command, pp. 10-32]
 - a) Meeting with subordinate commanders and leaders to receive information and issue directions.
 - 1a2 The DS FA battalion commander positions himself on the battlefield where he can best fulfill both his responsibilities as the FSCOORD to the brigade commander and as the DS FA battalion commander.
 - a) As the brigade FSCOORD, positions himself where he can best influence the battle and assist the brigade commander in integrating and coordinating indirect fire support.
 - (1) With the brigade commander.
 - (2) In the FSE.
 - 1b. The DS FA battalion commander ensures that each battlefield operating system (BOS) is integrated and coordinated with other BOS during delivery of fires and execution of battle. [FM 101-5, pp. H-36 - H-42]
 - 1b3 The DS FA battalion commander integrates and coordinates fire support with the other BOS.
 - a) The FA support plan (FASP) is coordinated with the brigade fire support plan.
 - (2) Last minute modifications to the plan must be approved by the brigade commander through the FSCOORD.

- (3) The DS FA battalion commander must ensure that procedures are in place that allow the staff to quickly assess and respond to new information.
 - (5) Staff members, based on their assessments, will:
 - (a) Change the schedule of fires or preplanned target list by substituting higher priority targets.
 - (b) Delete suspected targets.
 - (c) Designate on-call targets.
 - (d) Shift fires from planned targets.
- 1b4 The DS FA Cdr integrates and coordinates mobility/counter mobility/survivability with the other BOS.
 - a) Verifies that fires are planned to cover all obstacles and that responsibility for triggering those fires is coordinated between the maneuver forces and their fire support representatives.
 - b) Coordinates requirements for delivery of FASCAM with battery movement plans, requirements to service other HPTs, and ammunition resupply requirements.
 - c) Coordinates requirements for engineer support to DS FA units for position improvement and survivability enhancements.
 - d) The battalion CMLO coordinates decontamination support and site location with the brigade CMLO.
- 1b7 The DS FA battalion commander integrates and coordinates command and control with the other BOS.
 - c) CPs and staff continue to support the mission.
 - (1) Receive, process, and disseminate information.
 - (2) Move and position to support the DS FA battalion commander during the battle.
 - (3) Coordinate and integrate combat multipliers.
 - (4) Exchange information with brigade HQ, DIVARTY HQ, and CP of reinforcing FA battalion.
- 2. **The direct support field artillery battalion commander, with staff assistance, commands, controls, and synchronizes the field artillery cannon battalion fire support operations.** [TRADOC Pam 11-9, Section IV; Battle Command, pp. 43 and 65; ARTEP 6-115-20-MTP; FM 34-130, Chap 2; FM 6-20-40, Chap 2; FM 101-5, Chap 3, 5, App J]
 - 2a. The DS FA battalion CPs acquire information to assist the DS FA battalion commander. [TRADOC Pam 11-9, Chap 7 and App D]
 - 2a1 The DS FA battalion staff members, operating out of the DS FA battalion tactical operations center (TOC) directed by the DS FA battalion commander or the DS FA battalion SOP, obtain information during the execution of the battle that is:

- b) Focused on satisfying the DS FA battalion CCIR. [FM 101-5, pp. 6-8, 6-11, 6-16, and C-4]
- 2a2 The DS FA battalion S3 manages the flow of information in the DS FA battalion TOC and establishes a system to keep the DS FA battalion commander informed. [FM 101-5, pp. 6-2, 6-11, 6-34; ARTEP 6-115-MTP, Task 06-3-01-2110]
- 2a3 All DS FA battalion staff officers, LNOs, and subordinate leaders obtain information; they commonly: [FM 101-5, pp. 3-84, C-4, Chap 6, App A]
 - a) Focus information collection according to CCIR, PIR, and IR, and immediately communicate any response to CCIR to the DS FA battalion commander, XO, and S3. [FM 101-5, pp. 6-8, 6-11, 6-16, C-4]
 - b) Obtain information relevant to fulfilling their areas of responsibility for the DS FA battalion's execution of fire support for the brigade battle in order to: [FM 101-5, pp. 6-33, 6-34]
 - (1) Monitor and modify activities as necessary.
 - (2) Verify/modify coordination between the DS FA battalion and adjacent units.
 - c) Provide appropriate recommendations to the DS FA battalion commander relative to their functional areas. [FM 101-5, pp. 6-33, C-2]
- 2a4 The DS FA battalion CSM obtains information during visits and inspections, and advises the DS FA battalion commander. [AN]
- 2a6 DS FA battalion S3 section obtains operations information related to synchronizing fire support for the brigade (g., changes to mission, enemy, troops, terrain and time (METT-T), and status of BOS). [FM 101-5, pp. C-8, C-9; ARTEP 6-115-MTP, Task 06-3-01-2120]
 - b) From subordinate DS FA battalion units. [ARTEP 6-115-MTP, Task 06-3-01-2110, 2150]
 - (3) Recommendations from battery commanders on changes to the FASP based on their current status and projected status.
 - d) Brigade FSE, DS FA Bn staff, Bn TFs FSOs, and other elements operating in the Bde AO submit reports necessary to deconflict terrain requirements. [FM 101-5, Chap 3]
- 2b. The DS FA battalion CPs evaluate acquired information, update products, and maintain status related to integrating and coordinating fire support for the brigade. [FM 6-20-1 p. 3-1; FM 101-5, Chap 6; ARTEP 6-115-MTP, Task 06-1-02-2500]
- 2b1 The DS FA battalion S2 and intelligence section evaluate intelligence information, and update IPB products. [ARTEP 6-115-MTP, Task 06-1-02-2500]

- c) The DS FA battalion S2 and intelligence section update intelligence products. [ARTEP 6-115-MTP, Task 06-3-01-2510,2511]
 - (12) Coordinates intelligence aspects of DS FA battalion ground and air defense plans with batteries. [FM 6-20-1, p. 3-5]
 - (13) Advises the DS FA battalion S3 on employment of any target acquisition resources organic or attached to the DS FA battalion and recommends sectors of search. [FM 6-20-1, p. 5-1]
- 2c. DS FA battalion CPs and staff communicate information [FM 6-20-1, pp. 3-1 - 3-3; FM 101-5, Chap 5]
- 2c1 All DS FA battalion CPs and staff disseminate information. [FM 6-20-1, pp. 3-1 - 3-3]
 - a) Provide briefings to the DS FA battalion commander on the status of mission.
 - (1) Focus briefings on CCIR.
 - (2) Staff provides updates based on commander's requirements as FSCoord and DS FA battalion commander.
 - b) Each staff representative communicates critical information needed to:
 - (1) Coordinate DS FA battalion actions and plans.
 - (2) Monitor the situation.
 - (3) Direct DS FA battalion actions.
 - c) All DS FA battalion staff officers remain alert for and ensure that critical information they receive is passed to other DS FA battalion staff officers who require the information as soon as it is received.
 - d) Continually assess and report risks and hazards to mission accomplishment and force protection.
- 2c2 The DS FA battalion S2 and intelligence section communicates enemy's situation, evaluations of enemy capabilities, and analyses of PIR, IR, and routine information to: [ARTEP 6-115-MTP, Task 06-3-01-2511]
 - a) Brigade and DIVARTY S2.
 - b) Subordinate/supporting unit S2s.
 - c) DS FA battalion TOC.
 - d) DS FA battalion ALOC.
 - e) DS FA BSOC.
 - f) Adjacent unit headquarters in support of their collection efforts.
- 2c3 The DS FA battalion S3 section communicates operational information. [ARTEP 6-115-MTP, Task 06-3-01-2120, 2150]
 - a) Updated products including:
 - (1) DS FA battalion WARNOs and FRAGOs.

- (2) Coordinating instructions.
 - (3) Reports on the DS FA battalion situation.
 - (4) Evaluations of DS FA battalion execution.
 - (5) Answers to CCIR and IR.
- b) To: [FM 101-5, App A]
 - (1) DS FA battalion XO.
 - (2) DS FA battalion staff.
 - (3) Subordinate and supporting units.
 - (4) DS FA battalion ALOC.
 - (5) Brigade main CP.
 - (6) Brigade tactical CP.
- c) The DS FA battalion S3 section communicates with adjacent units to coordinate: [ARTEP 6-115-MTP, Task 06-3-01-2180]
 - (1) Checkpoints, coordination points, phase lines, and contact points.
 - (2) Direct and indirect fire plans, control measures, and restrictive fire lines (RFL).

2c4 The DS FA battalion FDO and FDC section communicate operational information:

- a) Refinements to the fire plan.
- b) Target lists.
- c) Support geometry (IFSAS/AFATDS input).
- d) Attack criteria.
- e) Subscriber tables.
- f) Instructions for degraded operations and continuity of operations.
- g) Enter and disseminate meteorology messages.

2c5 The brigade FSO and FSE section communicate brigade fire support situation and analyses of CCIR, IR, and routine information. [FM 101-5, App A; ARTEP 71-3-MTP, Task 71-3-9002/2,3]

- a) To: [FM 101-5, App A; ARTEP 71-3 MTP, Task 71-3-9002/2, 3]
 - (1) Brigade engineer.
 - (2) Brigade S2.
 - (3) Brigade S3.
 - (4) DIVARTY O&I section.
 - (5) Division FSE.

- (6) DS FA battalion S3.
- (7) Subordinate Bn TF FSOs.
- (8) ALO and Army aviation LNO.
- (9) FSB commander for rear operations.
- (10) DS FA battalion staff officers who need the information.

2c6 The DS FA battalion CMLO communicates the DS FA battalion NBC situation and analyses of CCIR, IR, and routine information. [FM 101-5, App A; ARTEP 3-4-MTP, Task 3-4-0007, 0009, 0016]

- a) To:
 - (1) Brigade CMLO.
 - (2) DS FA battalion subordinate commanders and leaders.
 - (3) Supporting NBC units (e.g., decontamination, reconnaissance).
 - (4) DS FA battalion staff officers who need the information.

2c7 The DS FA battalion communications section reports DS FA battalion communications situation and other routine information to other DS FA battalion staff sections and external headquarters and staff officers. [FM 101-5, App A; ARTEP 71-3-MTP, Task 71-3-1102/4]

- a) To:
 - (1) Brigade signal officer.
 - (2) DS FA battalion subordinate commanders and leaders.
 - (3) DS FA battalion staff officers who need the information.
- b) The DS FA battalion communications section coordinates with adjacent units and brigade headquarters. [AN]
 - (1) Confirms allocation and locations of signal assets and capabilities.
 - (2) Acquires signal equipment to supplement DS FA battalion CPs and subordinate DS FA battalion units which require special communications equipment.

2c8 DS FA battalion CSS officers report administrative and logistical situation and routine information to the DS FA battalion staff and external sources:

- a) DS FA battalion subordinate commanders and leaders.
- b) Brigade S1, brigade S4, division maintenance management center, and brigade surgeon.
- c) FSB and MSB staffs.
- d) DS FA battalion staff officers who need the information.

- 2c9 The DS FA battalion CSS staff coordinates with the DS FA battalion staff and DS FA battalion units: [FM 101-5, App A]
- a) To identify additional requests for support.
 - (1) Transportation assets (ground and air).
 - (2) Medical augmentation.
 - (3) Maintenance support for vehicles and weapons systems and for the recovery of damaged vehicles or the return of repaired vehicles.
 - b) To coordinate the transportation of supplies and cargo through DS FA battalion units.
 - c) To coordinate routine, emergency, and critical resupply operations (e.g., delivery times, types and quantities of supplies required).
 - d) For receiving and processing replacements.
 - e) To track the evacuation of personnel and casualties.
 - f) To process awards, decorations, promotions, and legal actions.
 - g) For security and protection of CSS units operating forward.
- 2c10 DS FA battalion S4 coordinates with the DS FA battalion S3 to deconflict terrain requirements and projected locations for:
- a) Ammunition transfer points (ATPs).
 - b) Ammunition supply points (ASPs).
 - c) Forward arming and refuel points.
- 2c11 The DS FA battalion CSS staff performs coordination with the FSB and supporting CSS headquarters: [FM 6-201, pp. 7-8-10]
- a) To process requests for support of the DS FA battalion.
 - (1) Additional transportation assets.
 - (2) Medical augmentation and support.
 - (3) Support of resupply operations.
 - (4) Intermediate DS/DS/intermediate GS maintenance support for vehicles and weapon systems and for recovery of damaged vehicles or return of repaired vehicles.
 - b) The DS FA battalion S4 coordinates the transportation of DS FA battalion supplies and cargo through adjacent units based on the locations of the BSA and other brigade or division supply points.
 - c) The DS FA battalion S4 coordinates routine, emergency, and critical resupply of the DS FA battalion (e.g., delivery times, types and quantities of supplies required).
 - d) Coordinates with the DS FA battalion S3 and the battalion ammunition officer (BAO) for the requisition and delivery of CL V (ammunition). [FM 6-20-1, p. 7-2]

- e) The DS FA battalion S1 processes awards, decorations, promotions, and legal actions of DS FA battalion personnel.
 - f) The DS FA battalion S1 coordinates with the DS FA battalion S2 for interrogation of prisoners and with the DS FA battalion S4 for processing of captured equipment and transportation requirements. [FM 6-20-1, p. 7-1]
 - g) The DS FA battalion S1 receives and processes replacements.
 - h) The DS FA battalion S1 tracks evacuation of personnel and casualties.
4. **The direct support field artillery battalion commander directs changes to the operation or plan** [TRADOC Pam 11-9, Section IV; ARTEP 6-115-20-MTP, Task 06-2-02-1000, 06-3-02-1100, 1130-1190, 1300, 1390; Battle Command, p. 12; FM 6-20-40, Chap 1, 2; FM 101-5, Chap 2, 4]
- 4c. The DS FA battalion staff coordinates internally and with higher, adjacent, and supporting elements to coordinate the FRAGO. [FM 101-5, App B]
 - 4c1 The DS FA battalion staff must inform DS FA battalion elements of outdated/preempted orders, execution products, and annexes containing information that has been superseded by the current FRAGO.
 - 4c3 The DS FA battalion S3 supervises the staff actions necessary to assist the brigade commander to synchronize the current battle.
 - 4c4 The DS FA battalion staff understands the DS FA battalion commander's visualization of synchronization requirements and performs coordination necessary to integrate the FRAGO.
 - 4c5 LNOs communicate the FRAGO and the DS FA battalion commander's intent to their respective headquarters.
5. **The direct support field artillery battalion command posts manage and maintain command, control, and communications.**
- 5a. DS FA battalion CPs manage means of communicating information. [FM 101-5, Chap 6, App B, L; ARTEP 6-115-MTP, Task 06-3-01-2150, 2160, 2120]
 - 5a6 Trains CPs (ALOC/BSOC).
 - d) The field trains BSOC locates with the BSA and coordinates all requirements for battalion organic and attached elements with all units in the BSA and with parent units as required.

6. **The direct support field artillery battalion commander provides leadership and directs planning to ensure that the fire support system is sustained.** [FM 6-20-1, Chap 7; FM 6-20, pp. 3-5 - 3-6]
- 6d. The DS FA battalion commander directs the staff to assist in providing support for the brigade during the brigade consolidation. The DS FA battalion coordinating and special staff accomplish the following: [FM 101-5, Chap 4; Battle Command Techniques and Procedures, Chap 2, 3; FM 71-3, App H]
- 6d1 The DS FA battalion XO:
c) Keeps the DS FA battalion commander informed of the activities of adjacent units.
- 6d2 The DS FA battalion S2:
c) Keeps the DS FA battalion commander informed of any change in the enemy situation.
- 6d3 The DS FA battalion S3:
f) Ensures that the DS FA battalion XO is aware of the DS FA battalion commander's guidance, intent, and desired endstate for upcoming engagements.
- 6d6 The DS FA battalion CSS staff keeps the FA Battalion XO and commander, as well as, when appropriate, the FSB commander or support operations officer, of changes to the CSS situation.

OUTCOME 4 ASSESSMENT

OUTCOME 4: Sound (suitable, feasible, acceptable) decisions are made by the DS FA Bn commander and others within the battalion.	Adequate	Marginal	Not Adequate
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(Use Tables 3, 4, 6, 7, and 9)

Assessment Statements

- The DS FA Bn commander updates his estimate based on his assessment of new information pertinent to the METT-T factors.
- The DS FA Bn commander projects battle endstates necessary to achieve his intent by considering factors associated with each BOS:
 - Intelligence -- Terrain impact on capability of the DS FA Bn to support friendly COAs while providing for force protection; effects of weather on DS FA Bn operations; confirmation (or contradiction) of enemy's COA current and future enemy situation.
 - Maneuver -- Status of brigade maneuver execution; unit positions and locations.
 - C2 -- Employs DST to assess impact of enemy location, direction of movement, and activities on providing fire support to the brigade.
 - Fire support -- Analyzes execution of fire support plan, subordinate unit delivery of fires, and changes to priority targets and fire support plan.
 - Air Defense -- Assesses current and future DS FA Bn needs for air defense based on current and future METT-T.
 - Mobility/countermobility/survivability (M/CM/S) -- Analyzes friendly and enemy obstacles to ascertain impact on DS FA Bn capability to deliver fires.
 - CSS -- Accounts for significant changes to supply (particularly Class V), status of distribution capability, and status of medical treatment and evacuation capability.
- The DS FA Bn commander informs the division and brigade commanders whether he can meet their intents.
- The DS FA Bn commander decides the current DS FA Bn plan must be modified.

- The DS FA Bn commander and DS FA Bn staff simultaneously monitor, plan and direct all aspects of current DS FA Bn operations while developing changes to plan.
- The DS FA Bn commander conducts the military decision making process (MDMP) in a time constrained environment, if required.
 - The DS FA Bn commander (with staff assistance, if required) develops new COAs.
 - The DS FA Bn commander selects a COA and performs a suitability-feasibility-acceptability analysis:
 - Suitable -- Plan accomplishes the DS FA Bn mission while meeting the DIVARTY and brigade commanders' intents.
 - Feasible -- There is time to execute the COA, terrain supports the plan, the DS FA Bn has personnel and equipment to execute the plan, the new plan will not have adverse effects on ongoing operations or DS FA Bn subordinate units.
 - Acceptable -- The plan does not unduly risk personnel, equipment, or mission accomplishment.
- The DS FA Bn commander conducts mission risk assessment to ensure that conditions most likely to cause mission failure and accidents (including fratricide) have been mitigated.
 - DS FA Bn units have not been tasked beyond their capabilities.
 - Situation and rules of engagement are understood by DS FA Bn members and procedural risk-reduction control measures have been implemented.

OUTCOME 4 DIAGNOSTIC AID

OUTCOME 4: Sound (suitable, feasible, acceptable) decisions are made by the DS FA Bn commander and others within the battalion.

Task Elements

1. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
 - 1a. The DS FA battalion commander directs subordinate forces.
 - 1a2. The DS FA battalion commander positions himself on the battlefield where he can best fulfill both his responsibilities as the FSCoord to the brigade commander and as the DS FA battalion commander.
 - a) As the brigade FSCoord, positions himself where he can best influence the battle and assist the brigade commander in integrating and coordinating indirect fire support.
 - (1) With the brigade commander.
 - (2) In the FSE.
 - b) As the DS FA battalion commander, when required, is in the DS FA battalion area to best exercise his commander duties.
 - c) Delegates specific duties to his XO and S3 to provide for freedom of movement to execute his duty as brigade FSCoord.
 - 1b. The DS FA battalion commander ensures that each battlefield operating system (BOS) is integrated and coordinated with other BOS during delivery of fires and execution of battle. [FM 101-5, pp. H-36 - H-42]
3. **The direct support field artillery battalion commander visualizes the battlefield** [TRADOC Pam 11-9, Chap 7, App D; ARTEP 6-115-20-MTP, Task 06-1-02-1000, 06-2-02-1000, 06-3-02-1100, 1300, 1500, 1600, 06-1-02-1700; FM 6-20-30, Chap 2, App J; FM 101-5, Chap 3, Appendices F, J]
 - 3a. The DS FA battalion commander updates his estimate based on his assessment of the current situation and new information: [FM 100-5, pp. 2-14, 15; FM 101-5, pp. 1-4 - 1-11, 3-85, Chap 4 and App C; FM 71-3, p. 3-2; Battle Command]
 - 3a1. Identifies changes to the mission.
 - a) The brigade and division commanders' intents.

- b) The brigade concept of the operation.
- c) The DS FA battalion mission in terms of:
- d) Present concept of operation (maneuver and fires).
- e) Comparison of the present plan to the current situation.
- f) Based on reports from the DS FA battalion staff, LNOs, and subordinate and supporting commanders, analyzes execution of the fire support plan to include:
 - (1) The adequacy of support for the forces in contact.
 - (2) Support for the brigade commander's plan.
 - (3) Synchronization of fire support.
 - (4) Ability to sustain fire support.

3a2 Identifies changes to the enemy situation:

- a) Validity of estimate.
 - (1) Changes in enemy strength.
 - (2) Changes in enemy capabilities.
 - (3) Changes in projected enemy COA.
 - (4) DS FA battalion commander's designated essential elements of friendly information (EEFI).
- b) Collection plan responsiveness.
 - (1) Whether PIR and IR are being filled.
 - (2) Adequacy of DS FA battalion collection assets' positions, activities, and objectives.
 - (a) FISTs, forward observers (FOs), and COLTs.
 - (b) Army aviation elements.
 - (c) UAVs and ground surveillance radars (GSRs).
 - (d) Adjacent and forward units.
 - (3) Need for and adequacy of external information sources.
 - (a) Forward air controller (FAC) and CAS aircraft.
 - (b) Brigade staff and assets.
 - (4) Validity of the initial IPB, threat analysis, and decide criteria to support the detect, deliver, and assess functions.
 - (a) Sensor collection plan adequate for HPTs.
 - (b) Trigger points remain valid.
 - (c) Cueing plan effectiveness.
 - (d) Targeting cell awareness of target location accuracy requirements.

- 3a3 Identifies changes to the friendly (“Troops”) situation:
- a) Validity of designated friendly forces information requirements (FFIR).
 - b) Dispositions and locations of:
 - (1) Brigade units. [ARTEP 71-3-MTP, Task 71-3-3003/3]
 - (2) DS FA battalion and reinforcing FA battalion and other supporting FA and fire support assets. [ARTEP 6-115-20-MTP, Task 06-3-02-1100/3]
 - (3) Target acquisition and collection systems. [ARTEP 6-115-MTP, Task 06-1-02-2600, 06-2-02-2001]
 - c) Composition and task organization changes of subordinate DS FA battalion units. [ARTEP 6-115-MTP, Task 06-2-02-3000, 06-3-01-2150/2]
 - d) Strength of subordinate units. [ARTEP 6-115-MTP, Task 06-2-02-3000]
 - e) Peculiarities and weaknesses of subordinate unit preparation and the implementation of the fire support plan. [ARTEP 6-115-MTP, Task 06-2-02-3000]
 - f) Vulnerability of friendly units to enemy NBC attacks. [ARTEP 6-115-20-MTP, Task 06-3-02-1240]
 - g) Loss (e.g., to enemy action, maintenance) of howitzers.
 - h) Loss (e.g., to enemy action, maintenance) of target acquisition systems, observers, or equipment (e.g., FISTs, COLTs, radars, FOs). [FN]
 - i) Status and allocation of:
 - (1) CAS (U.S. Air Force, U.S. Navy, U.S. Marine Corps). [FN]
 - (2) Naval surface fires.
 - (3) Attack and observation helicopter support.
 - (4) Non-lethal attack systems.
 - j) Changes in munitions availability. [FN]
 - k) Fire support requirements which exceed the DS FA battalion’s and reinforcing battalion’s abilities to satisfy, identified requirements as the brigade executes the mission. [FM 6-20-40, Chap 2].
 - l) Changes to priority targets and the fire support plan resulting from changes to the status of target acquisition and firing units. [FM 6-20-40, pp. 2-22]
 - m) Changes to FSCM resulting from division guidance and input from subordinate units. [FM 6-20-40, Chap 2]
 - n) Impact of locations, activities, and intentions of adjacent units (left, right, front, rear, higher) on brigade fire support coordination.
 - o) Subordinate unit delivery of fires, which include:
 - (1) Battery commanders’ understanding of and actions to achieve the brigade commander’s intent and fire support guidance.

- (2) Location and execution of target acquisition systems and observers (e.g., FOs, enlisted terminal attack controller, supporting arms liaison team, COLTs).
- (3) Batteries' execution of their missions.
 - (a) Troop leading procedures.
 - (b) Occupation of firing positions and delivery of fire by batteries.

3a4 Identifies changes to terrain:

- a) Changes to initial terrain estimate and impact of differences on the concept of the operation.
 - (1) Terrain factors.
 - (a) Trafficability.
 - (b) Cant.
 - (c) Site to crest.
 - (d) Key terrain.
 - (e) Avenues of approach.
 - (2) Requirement for units to occupy alternate positions or to prepare new positions to continue support of operation.
- b) Weather and forecasted weather factors' validity.
 - (1) Visibility (including fog and cloud cover) and light data.
 - (2) Effects of weather.
 - (a) Impact on trafficability.
 - (b) Impact of meteorological data on delivery of fires.

3a5 Identifies changes to time available:

- a) Accomplishment of key mission in accordance with brigade timelines.
- b) Based on what has and has not been accomplished, sufficiency of time available to complete all tasks.

3a6 The DS FA battalion commander assesses the tactical situation and verifies: [FM 101-5, App C; FM 6-20, pp. 3-3 - 3-6]

- a) Fire support.
 - (1) Ability to support brigade forces in contact.
 - (a) HPTs are still valid.
 - (b) Brigade collection assets are capable of tracking HPTs to decision points.
 - (c) Radar cueing schedule and zones are providing the necessary targets to win the counterfire battle.
 - (d) Sufficient fire support is available to the Bn TF commanders to provide freedom of maneuver.
 - (2) Ability to support the plan.

- (a) Ensures that fire plans have been adjusted by the brigade/Bn TF FSOs based on new enemy and terrain information.
 - (b) Fire plans have been refined and modified by the brigade FSO to ensure that fires are massed as designated by the brigade commander.
 - (c) Direct and indirect fire plans are synchronized and integrated with all other combat multipliers, including physical tie-in between Bn TF units and units to flanks.
 - (d) Fire support priorities adequately weight the brigade main effort.
 - (e) Target acquisition assets are providing timely data.
 - (f) Fire support units are positioned and prepared to continue support for the operation, or that they can move in time.
- (3) Synchronization of fire support.
 - (a) Direct and indirect fire coordination measures have been disseminated, confirmed by, and implemented by DS FA battalion subordinate commanders.
 - (b) Target lists continue to be refined by the brigade FSO and Bn TF FSOs and are synchronized with changes to the brigade or Bn TF schemes of maneuver.
- b) Mobility and survivability.
 - (1) Obstacles are in place or are projected to be.
 - (2) Obstacles are observed and covered by fires.
 - (3) Modifications based on new information to FASCAM employment plans have been made by the brigade engineer, ABE, and brigade FSO.
- c) CSS.
 - (1) CSS priorities are adjusted based on new information.
 - (2) Supplies are adequate to support the operation and are being delivered to DS FA battalion units on time.
 - (3) There are sufficient transportation assets available and operational to support the operation.
 - (4) The status of personnel fill enable DS FA battalion units to accomplish their missions and tasks.
 - (5) The state of morale in the DS FA battalion continues to be high.
 - (6) The current and projected state of maintenance of equipment in the DS FA battalion meets mission requirements.
 - (7) Medical personnel, supplies, and equipment are available and positioned to support the operation.
 - (8) Tube strength remains adequate to provide fire support for the current operation and on-order missions.
 - (9) The ALOC is positioned to provide timely logistic support to the batteries.
 - (10) Ammunition levels in the batteries are adequate to support the fire plan, targets of opportunity, and high volume fires such as FASCAM.
- d) Command and control.

- (1) Key digital and communications links within the DS FA battalion remain operational.
 - (2) Current and projected locations of DS FA battalion CPs provide for continuous command and control.
- 3b. The DS FA battalion commander projects the outcome of the current battle based on his evaluation of the current plan and the status of the fire support system. [FM 101-5, pp. 1-11 - 1-17, 4-48]
- 3b1 Activities of the DS FA battalion are assessed to ensure that the DS FA battalion is executing the brigade fire support plan. [FM 6-20-40, pp. 2-18; FM 6-20-50, p. 2-18]
- 3b2 FA target acquisition radars and systems operations are assessed to ensure that they are adhering to priorities for observation. [ARTEP 6-115-MTP, Task 06-2-01-2513/1]
 - a) Radars and systems are positioned as directed. [ARTEP 6-115-MTP, Task 06-2-01-2513/1]
 - b) Searches are being executed in directed sectors. [ARTEP 6-115-MTP, Task 06-2-01-2513/1]
 - c) Coverage of the brigade AO is being achieved as directed. [ARTEP 6-115-MTP, Task 06-2-01-2513/1]
 - d) Brigade radar zones are integrated with division radar zones to ensure no gaps in coverage exist. [ARTEP 6-115-MTP, Task 06-2-01-2513/1]
- 3b3 The DS FA battalion commander projects the outcome of the current battle to determine the collection plans capability to acquire and track brigade HPTs and other targets based on the situation. [FM 6-20-10, pp. 1-10, 2-11]
- 3b4 The DS FA battalion commander projects the outcome of the current battle to determine the need for additional fire support or target acquisition systems to achieve the required endstate for the current mission. [AN]
- 3b5 The DS FA battalion commander identifies additional fire support attack systems (e.g., FA, CAS, naval surface fires, nonlethal) required to execute the brigade fire support plan. [FM 6-20-40, pp. 2-5; FM 6-20-50, pp. 2-5]
- 3b6 The DS FA battalion commander identifies additional target acquisition and collection systems required to execute the fire support plan. [FM 6-20-40, pp. 2-5; FM 6-20-50, p. 2-5]
- 3b7 The DS FA battalion commander identifies alternatives and options for changing the current distribution and missions of existing brigade target acquisition and attack systems assets to allow the brigade fire support plan to be executed. [FM 6-20-40, p. 2-5; FM 6-20-50, p. 2-5]

- 3c. The DS FA battalion commander anticipates future requirements and actions (sequels) based on his projection of the outcome of the current battle. [FM 101-5, pp. 1-15, 4-46, App C]
- 3c1 The DS FA battalion staff assists the DS FA battalion commander in his assessment of future requirements by providing information. [AN]
- 3c2 Mission.
- a) The brigade and division commanders' intents are continuously reviewed for probable mission changes.
 - b) Friendly capabilities and templated/anticipated enemy capabilities are compared to determine if directed and projected endstates can be achieved as planned.
 - c) Branches, sequels, and alternative COAs for the current mission are reviewed to determine the need for modification based on available information.
 - d) Risk criteria are reassessed.
 - e) On-order missions are reviewed.
 - f) Necessary changes to the planned role and employment of fire support assets are determined.
 - g) Impact of changes to the brigade fire support plan on the FASP.
- 3c3 Enemy.
- a) Satisfied PIR, IR, and other intelligence information are reviewed for deviations from the original templated enemy action.
 - b) Enemy's mission and intent are not as anticipated.
 - c) Confirmed enemy strength and dispositions are not the same as initially templated.
 - d) Updated SIT TEMP and event templates are assessed to determine the DS FA battalion's ability to achieve future contingencies.
 - d) The DS FA battalion commander may adjust PIR and IR.
 - e) The DS FA battalion commander decides whether there is a need to recommend changes to the designation of NAIs, TAIs, and HPTs.
- 3c4 Troops.
- a) Future mission capability of subordinate units is projected.
 - (1) Combat power, current and projected, required to achieve new or previously unidentified tasks.
 - (2) Projected equipment and personnel status.
 - (3) Ability to move and maneuver based on changes to terrain factors.

- (4) Capability to range critical targets and mass fires as required to meet new conditions or missions.
 - b) Impact of other units' plans on DS FA battalion plans.
 - c) Adequacy of future logistics support areas and MSR/ASRs is determined.
 - d) Adequacy of supplies to meet new requirements is determined.
 - e) The DS FA battalion commander reviews and updates FFIR as needed.
- 3c5 Terrain.
- a) Impact of terrain factors in and around the proposed firing positions.
 - b) Impact of projected weather on terrain factors.
 - c) Impact of terrain on choice of munitions.
- 3c6 Time.
- a) Projections of time available versus time required to meet new mission requirements.
 - b) Changes to mission timelines necessitated by enemy activities or changes to DS FA battalion or elements' missions.
- 3d. The DS FA battalion commander decides whether the plan needs to be changed. [FM 101-5, pp. 4-48]
- 3d1 The DS FA battalion commander decides the current plan meets the assessed situation and continues to monitor and direct DS FA battalion fires. [FM 101-5, p. 4-48]
- 3d2 The DS FA battalion commander decides the plan must be modified. [FM 101-5, p. 4-48]
- a) The situation is such that the current fire support plan and FASP no longer support forces in contact or support the maneuver plan.
 - b) Changes to the brigade plan require that the fire support plan and FASP be modified.
- 3d3 The DS FA battalion commander decides to initiate a FRAGO; considers (see task 4 for description of how to develop and issue this FRAGO): [FM 101-5, pp. 1-14 - 1-16]
- a) Whether COAs previously developed can be modified and developed as the new plan.
 - b) Time available to develop, coordinate, and implement a new plan.
 - c) Subordinate units' time to complete new preparation requirements under the new plan and task organization.
 - d) The DS FA battalion staff's ability to continue to monitor and direct current DS FA battalion activities while meeting new planning requirements.

- 3d4 The DS FA battalion commander assesses the impact of new FRAGOs from brigade.
 - a) Time required to plan and prepare for new mission based on current mission timelines.
 - b) Ability of the DS FA battalion to respond to the new situation based on the level of mission preparedness.
 - (1) Fire units available to respond without impacting the DS FA battalion's ability to perform the current mission.
 - (2) Availability of CSS and supplies to support the new situation without impacting on support necessary for the current mission.
 - c) Capability of the DS FA battalion staff to dedicate time and effort to plan and coordinate new missions; impact of diverting key staff members from monitoring execution of the current mission to planning for a new mission.
- 3d5 The DS FA battalion commander determines how to modify the military decision-making process (MDMP) based on complexity, potential for confusion on the battlefield, and time available. [FM 101-5, Chap 4]
 - a) The DS FA battalion commander determines staff availability, the magnitude of change to the plan, and the amount of time available before execution.
 - b) The DS FA battalion commander decides where to conduct the decision-making process and actions required to produce and disseminate the FRAGO.
- 4. **The direct support field artillery battalion commander directs changes to the operation or plan** [TRADOC Pam 11-9, Section IV; ARTEP 6-115-20-MTP, Task 06-2-02-1000, 06-3-02-1100, 1130-1190, 1300, 1390; Battle Command, p. 12; FM 6-20-40, Chap 1, 2; FM 101-5, Chap 2, 4]
- 4b. The DS FA battalion commander conducts the MDMP in a time-constrained environment, if required. [FM 101-5, pp. 4-41 - 4-60]
- 4b1 When planning changes to current orders or planning for a new mission during the execution phase of the current battle, the DS FA battalion commander must:
 - a) Consider using products developed during the MDMP for the current mission as reference points from which modifications are made to predetermined branches and sequels. Products include:
 - (1) Weather analysis.
 - (2) Terrain analysis.
 - (3) Enemy OB and updated IPB products.
 - (4) Current updated staff estimates.
 - (a) DS FA battalion capabilities.
 - (b) Constraints.

- (5) PIR, EEFI, and FFIR requested by the DS FA battalion commander.
- b) The DS FA battalion commander and staff simultaneously monitor, plan, and direct all aspects of DS FA battalion operations (e.g., support of the counter-reconnaissance battle, support of the current mission, changes to the current plan, and the next mission being formulated).
- c) The DS FA battalion commander and staff monitor the pace of the battle so as to make changes in a timely manner, and if appropriate, plan for a future mission.
- d) Recognize the similarities and/or differences between the initial plan and new requirements.
- e) Assess the friendly force posture, enemy probable actions, and battlespace.
- f) The DS FA battalion commander and staff anticipate the outcome of the current fight to begin considering future requirements and actions.

4b2 The DS FA battalion commander reviews his estimate.

- a) Mission: identifies specified and implied tasks which his DS FA battalion must accomplish.
- b) Enemy: the DS FA battalion commander identifies:
 - (1) A single or limited number of enemy COA which the DS FA battalion must defeat.
 - (2) Enemy strength, location, disposition, activity, equipment, and capabilities.
- c) Terrain and weather: the DS FA battalion commander identifies relevant or specific aspects of soil type, hydrology, climatic conditions, and visibility.
- d) Troops: the DS FA battalion commander analyzes the DS FA battalion's combat power in terms of capability relative to what he believes necessary to accomplish the mission.
 - (1) Capabilities, strengths, and weaknesses of subordinate commanders and units.
 - (2) Weapon systems and equipment.
 - (3) Disposition.
 - (4) Supplies.
 - (5) Troop rest and morale.
- e) Time: The DS FA battalion commander determines the time available for planning, preparing, and executing the operation for both enemy and friendly forces.

4b3 The DS FA battalion commander and S3 conduct a quick mission analysis; they consider: [FM 101-5, p. 4-48]

- a) The current situation and information.
- b) The brigade and division commanders' intents and desired endstates.
- c) Whether the DS FA battalion has the assets and resources to execute the new mission.
- d) The changes to the fire support plan that determine the need to change the FASP.

- e) The DS FA battalion commander may request information from the staff to support his COA development.
 - (1) BOS specific information from selected staff members.
 - (2) Information available in products developed during the initial mission MDMP.

- 4b4 The DS FA battalion staff assists the DS FA battalion commander in developing COA, if situation permits [FM 101-5, p. 4-51]
 - a) Uses products and analyses developed during the initial mission MDMP to define branches and sequels for consideration.
 - b) Provides recommendations to modify existing branches and sequels to meet new requirements.
 - c) Provides recommendations on developing new branches and sequels based on new requirements.

- 4b5 The DS FA battalion commander selects a COA and describes his revised concept to his staff. [FM 101-5, p. 4-49]
 - a) Typically, one enemy and one friendly COA are assessed due to the time constraints which limits and streamlines the decision-making process.
 - b) The DS FA battalion commander explicitly expresses COA concepts:
 - (1) Intent and desired endstate.
 - (2) Concept of operations.
 - (a) Major components of movement plan (centralized or decentralized control).
 - (b) Integration of combat multipliers.
 - (c) Critical HPTs and center of gravity.
 - (3) Enemy COA(s) to be considered.
 - (4) CCIR.
 - (5) Limitations.
 - (6) Risks.
 - c) The DS FA battalion commander provides the concept and guidance to the staff for detailed COA development and mission analysis.
 - d) If time is available, the DS FA battalion staff conducts mission analysis and:
 - (1) Develops details on the COA provided by the DS FA battalion commander.
 - (2) Develops branches and sequels to the selected COA which adhere to the DS FA battalion commander's guidance.

- 4b6 The DS FA battalion commander performs a suitability-feasibility-acceptability analysis of the new plan. The DS FA battalion commander performs the analysis by himself or with staff assistance. [FM 101-5, p. 4-51]
 - a) Suitability factors:

- (1) New concept accomplishes the DS FA battalion mission.
- (2) New concept meets the brigade and division commanders' intents.
- (3) The plan accomplishes his intent for the DS FA battalion's endstate.
- b) Feasibility factors:
 - (1) Sufficient time to execute the plan as designed.
 - (a) Duration of events.
 - (b) Time and distance factors for maneuver and fires.
 - (2) Sufficient ground and air space to accomplish the plan as designed.
 - (a) Roads and terrain support the plan.
 - (b) Depth of action.
 - (3) The means to execute the plan as designed are available.
 - (a) DS FA battalion combat power vs. the enemy (force ratios).
 - (b) Required ammunition available to support the plan (e.g., smoke, FASCAM).
 - (4) Impact of on-going preparation activities.
 - (5) Impact on subordinate units and combat multipliers.
 - (6) Requirements to alter task organization.
- c) Acceptability:
 - (1) Mission success is not at significant risk of failure.
 - (2) Hazards to soldiers, equipment and supplies are within acceptable limits.

4b7 The DS FA battalion commander quickly compares COAs (if more than one).

4b8 The DS FA battalion commander selects a COA and announces his decision to key DS FA battalion staff members.

4b9 The DS FA battalion commander conducts mission risk assessment to ensure that conditions most likely to cause mission failure and accidents (including fratricide) have been mitigated.

- a) DS FA battalion units have been tasked within their capabilities.
- b) Procedural and positive risk-reduction control measures have been implemented, for example:
 - (1) Emphasizes situational awareness.
 - (2) Emphasizes positive target identification.
 - (3) TSOPs are consistent with doctrine and are adhered to.
 - (4) Doctrinally correct terminology is applied to all control measures (e.g., fire support coordination lines [FSCs], and restrictive fire lines [RFLs]).

(5) Rules of engagement (ROE) are clear.

4b10 The DS FA battalion commander reviews his current CCIR to determine: [FM 101-5, pp. 4-47/48]

- a) Validity of CCIR.
- b) New CCIR required to provide the DS FA battalion commander with the information needed to make decisions about the plan.

4b11 The DS FA battalion commander directs preparation of FRAGOs. [FM 101-5, App H]

- a) The DS FA battalion S3 manages and supervises internal and external coordination by the staff to synchronize plan refinements.
- b) The staff takes prompt action to accomplish the guidance given by the DS FA battalion commander.
 - (1) Publishes refinements to orders and planning and execution products such as DST, synchronization matrix, FSEM.
 - (2) Initiates requests to DIVARTY for additional support.
- c) The DS FA battalion staff at the DS FA battalion TOC refines plans, facilitates planning for future operations, identifies and corrects problems identified during subordinate unit execution, and coordinates additional support from DIVARTY.
- d) The DS FA battalion staff develops FRAGOs reflecting changes to the initial plan for the DS FA battalion commander's approval: [FM 101-5, App H]
 - (1) Graphics and control measures for the operation.
 - (2) DST and synchronization matrix from the brigade FRAGO.
 - (3) Fire support plan, FSEM, FSCM.
 - (4) Communications plan.
 - (5) CSS plan.

4b12 The DS FA battalion commander approves FRAGOs and directs members of his staff to issue FRAGOs based on his approval or in compliance with his guidance. [FM 101-5, p. 4-49]

OUTCOME 5 ASSESSMENT

OUTCOME 5: Affected units and personnel receive relevant direction, changes, and refinements to the plan in time to perform troop leading procedures and execute coordinated and synchronized actions. (Use Tables 7, 8, and 9)

Component A. DS FA Bn staff issues WARNOs and FRAGOs.	Adequate	Marginal	Not Adequate
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Assessment Statements

- The DS FA Bn commander and/or staff issue WARNOs to alert DS FA Bn staff members and DS FA Bn subordinate elements that the plan will be changed.
- The DS FA Bn issues a complete DS FA Bn FRAGO which contains:
 - (a) Allocation of all FA assets.
 - (b) Projected changes to the allocation of FA assets based on tactical contingencies in the Bde operations order (OPORD) (on-order missions).
 - (c) The DS FA Bn Cdr's concept of the operation.
 - (d) Requirements for positioning and movement of firing units to support the fire support plan (FA support plan may or may not be written).
 - (e) The controlled supply rate for ammunition, if any.
 - (f) Arrangements for command and control if they differ from unit's FA Bn TSOPs.
 - (g) Specific instructions for attached target acquisition assets, survey, and meteorology.
 - (h) Specific instructions for combat service support, if different from normal unit SOPs.
 - (i) Restrictions on ammunition expenditures, types of fires, and limiting risk to friendly troops.
 - (j) Current and on-order FSCM.
 - (k) The target list developed by the Bde.
 - (l) Schedules for preplanned fires.
 - (m) Special instructions on rules of engagement, fire support communications, and logistic support.
 - (n) Locations of DS FA Bn CPs, ASPs, and ATPs.
 - (o) NBC coordinating instructions.

- If time does not permit the publication of a written FRAGO, the DS FA Bn commander directs the DS FA Bn S3 to publish an overlay with critical information; or, issue a verbal order to key leaders.
- The DS FA Bn staff coordinates internally, with DIVARTY, and with the supported brigade HQ and TF FSOs to synchronize the FRAGO.

Component B. DS FA Bn commander and staff direct execution of fire support.	Adequate	Marginal	Not Adequate
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Assessment Statements

- The DS FA Bn commander synchronizes support of tactical operations to focus indirect fires at decisive points to support the armored brigade commander's intent.
- Battery movements are conducted so that units are on time and at the right place to achieve intended results.
- DS FA Bn provides required support to the armored brigade.

OUTCOME 5 DIAGNOSTIC AID

OUTCOME 5: Affected units and personnel receive relevant direction, changes, and refinements to the plan in time to perform troop leading procedures and execute coordinated and synchronized actions.

Task Elements

Component A. DS FA Bn staff issues WARNOs and FRAGOs.

1. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
 - 1b. The DS FA battalion commander ensures that each battlefield operating system (BOS) is integrated and coordinated with other BOS during delivery of fires and execution of battle. [FM 101-5, pp. H-36 - H-42]
 - 1b3 The DS FA battalion commander integrates and coordinates fire support with the other BOS.
 - a) The FA support plan (FASP) is coordinated with the brigade fire support plan.
 - (2) Last minute modifications to the plan must be approved by the brigade commander through the FSCOORD.
3. **The direct support field artillery battalion commander visualizes the battlefield** [TRADOC Pam 11-9, Chap 7, App D; ARTEP 6-115-20-MTP, Task 06-1-02-1000, 06-2-02-1000, 06-3-02-1100, 1300, 1500, 1600, 06-1-02-1700; FM 6-20-30, Chap 2, App J; FM 101-5, Chap 3, Appendices F, J]
 - 3d. The DS FA battalion commander decides whether the plan needs to be changed. [FM 101-5, pp. 4-48]
 - 3d5 The DS FA battalion commander determines how to modify the military decision-making process (MDMP) based on complexity, potential for confusion on the battlefield, and time available. [FM 101-5, Chap 4]
4. **The direct support field artillery battalion commander directs changes to the operation or plan** [TRADOC Pam 11-9, Section IV; ARTEP 6-115-20-MTP, Task 06-2-02-1000, 06-3-02-1100, 1130-1190, 1300, 1390; Battle Command, p. 12; FM 6-20-40, Chap 1, 2; FM 101-5, Chap 2, 4]

- 4a. The DS FA battalion commander and/or staff issue WARNOs to alert DS FA battalion staff members and subordinate DS FA battalion elements that the plan will be changed. WARNOs may include: [FM 101-5, p. 4-55]
 - 4a1 The enemy situation, events, and the mission, task, or operation.
 - 4a2 The brigade and division missions.
 - 4a3 The brigade and division commanders' intents.
 - 4a4 The DS FA battalion commander's intent statement.
 - 4a5 The earliest time of movement or degree of notice the DS FA battalion commander gives to the main body.
 - 4a6 Orders for advanced parties, reconnaissance parties, and azimuth of fire.
 - 4a7 Service support instructions, special equipment necessary, regrouping of transportation, or preliminary moves to assembly areas.
 - 4a8 The rendezvous point or time for assembly of an orders group; whether commanders or representatives are to attend; time needed for issuing written orders.
- 4b. The DS FA battalion commander conducts the MDMP in a time-constrained environment, if required. [FM 101-5, pp. 4-41 - 4-60]
- 4b11 The DS FA battalion commander directs preparation of FRAGOs. [FM 101-5, App H]
 - a) The DS FA battalion S3 manages and supervises internal and external coordination by the staff to synchronize plan refinements.
 - b) The staff takes prompt action to accomplish the guidance given by the DS FA battalion commander.
 - (1) Publishes refinements to orders and planning and execution products such as DST, synchronization matrix, FSEM.
 - (2) Initiates requests to DIVARTY for additional support.
 - c) The DS FA battalion staff at the DS FA battalion TOC refines plans, facilitates planning for future operations, identifies and corrects problems identified during subordinate unit execution, and coordinates additional support from DIVARTY.

- d) The DS FA battalion staff develops FRAGOs reflecting changes to the initial plan for the DS FA battalion commander's approval: [FM 101-5, App H]
 - (1) Graphics and control measures for the operation.
 - (2) DST and synchronization matrix from the brigade FRAGO.
 - (3) Fire support plan, FSEM, FSCM.
 - (4) Communications plan.
 - (5) CSS plan.

- 4b12 The DS FA battalion commander approves FRAGOs and directs members of his staff to issue FRAGOs based on his approval or in compliance with his guidance. [FM 101-5, p. 4-49]

- 4b13 The DS FA battalion S3 issues complete FRAGOs which contain: [FM 101-5, App H]
 - a) Allocation of all FA assets.
 - b) Projected changes to the allocation of FA assets based on tactical contingencies in the brigade OPORD (on-order missions).
 - c) The DS FA battalion commander's concept of the operation.
 - d) Requirements for positioning and movement of firing units to support the fire support plan (FASP may or may not be written).
 - e) The controlled supply rate (CSR) for ammunition, if any.
 - f) Arrangements for command and control if they differ from unit DS FA battalion TSOPs.
 - g) Specific instructions for attached target acquisition assets, survey, and meteorology.
 - h) Specific instructions for CSS, if different from normal unit SOPs.
 - i) Restrictions on ammunition expenditures, types of fires, and limiting risk to friendly troops.
 - j) Current and on-order FSCM.
 - k) The target list developed by the brigade.
 - l) Schedules for preplanned fires.
 - m) Special instructions on ROE, fire support communications, and logistic support.
 - n) Locations of DS FA battalion CPs, ASPs, and ATPs.
 - o) NBC coordinating instructions.

- 4c. The DS FA battalion staff coordinates internally and with higher, adjacent, and supporting elements to coordinate the FRAGO. [FM 101-5, App B]

- 4c1 The DS FA battalion staff must inform DS FA battalion elements of outdated/preempted orders, execution products, and annexes containing information that has been superseded by the current FRAGO.
- 4c2 The DS FA battalion S3, at the TOC, must analyze the current FRAGO in light of current brigade, adjacent, and supporting unit OPODs to preclude conflict.
- 4c3 The DS FA battalion S3 supervises the staff actions necessary to assist the brigade commander to synchronize the current battle.
- 4c5 LNOs communicate the FRAGO and the DS FA battalion commander's intent to their respective headquarters.
- 6. **The direct support field artillery battalion commander provides leadership and directs planning to ensure that the fire support system is sustained.** [FM 6-20-1, Chap 7; FM 6-20, pp. 3-5 - 3-6]
- 6d. The DS FA battalion commander directs the staff to assist in providing support for the brigade during the brigade consolidation. The DS FA battalion coordinating and special staff accomplish the following: [FM 101-5, Chap 4; Battle Command Techniques and Procedures, Chap 2, 3; FM 71-3, App H]
- 6d2 The DS FA battalion S2:
 - b) Assists in the preparation of DS FA battalion OPORD and/or FRAGOs.
- 6d3 The DS FA battalion S3:
 - c) Supervises the staff preparation of orders for follow on missions. Prepares the DS FA battalion order or FRAGO for the next mission based upon the DS FA battalion commander's guidance.

Component B. DS FA Bn staff directs execution of fire support to the armored brigade.

- 1. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
- 1a. The DS FA battalion commander directs subordinate forces.

- 1a2 The DS FA battalion commander positions himself on the battlefield where he can best fulfill both his responsibilities as the FSCOORD to the brigade commander and as the DS FA battalion commander.
- a) As the brigade FSCOORD, positions himself where he can best influence the battle and assist the brigade commander in integrating and coordinating indirect fire support.
 - (1) With the brigade commander.
 - (2) In the FSE.
 - b) As the DS FA battalion commander, when required, is in the DS FA battalion area to best exercise his commander duties.
 - c) Delegates specific duties to his XO and S3 to provide for freedom of movement to execute his duty as brigade FSCOORD.
- 1b. The DS FA battalion commander ensures that each battlefield operating system (BOS) is integrated and coordinated with other BOS during delivery of fires and execution of battle. [FM 101-5, pp. H-36 - H-42]
- 1b1 The DS FA battalion commander integrates intelligence requirements with the other BOS.
- c) The DS FA battalion commander manages the detection effort to acquire and engage HPTs.
 - (1) Verifies that means are available to detect and track HPTs.
 - (2) Ensures that responsibility for the attack of critical HPTs has been assigned and that the responsible agency is prepared to execute with the assigned trigger.
 - (3) Confirms a backup attack system for each critical HPT.
 - (4) Verifies that assessment assets linked to critical HPTs are available as needed.
 - (5) Informs assessment asset managers as HPT refinements or attack times and measures change.
 - (6) Verifies that target intelligence from assessment is incorporated into overall enemy situational development.
- 1b2 The DS FA battalion commander integrates and coordinates fire support with maneuver.
- 1b4 The DS FA Cdr integrates and coordinates mobility/counter mobility/survivability with the other BOS.
- 1b5 The DS FA battalion commander integrates and coordinates air defense with the other BOS.
- 1b6 The DS FA battalion commander integrates and coordinates CSS with the other BOS.
- a) Verifies that CSS assets are positioned and are providing planned supply, medical, and maintenance support to the DS FA battalion during the mission, without interfering with the DS FA battalion delivery of fires.

- b) Verifies that push packages of emergency resupplies are configured and ready.
- c) Reviews designated MSR and ASRs to ensure that CSS assets continue to provide timely response.
- d) Verifies that medical assets and operations are supporting the DS FA battalion.
- e) Ensures that vehicles and equipment are being recovered, repaired, and returned to the user or delivered to higher maintenance echelons.
- f) Verifies maintenance assets are task organized and are providing support.

1b7 The DS FA battalion commander integrates and coordinates command and control with the other BOS.

- a) The DS FA battalion commander monitors the DST, synchronization matrix, AGM, and FSEM to ensure that:
 - (1) Modifications to the brigade plan and fire support plan are integrated.
 - (2) Mission details to achieve the brigade commander's intent are adequately reflected.
 - (3) Fire support is massed:
 - (a) Against the enemy.
 - (b) At the decisive point and time as visualized by the brigade commander.
- b) Command and control measures are reviewed by the DSFA battalion commander, staff, and subordinate leaders to ensure that changes in the tactical situation are incorporated into all DS FA battalion documents; at minimum:
 - (1) Maneuver graphics and control measures (e.g., phase lines, objectives, routes, check and coordination points).
 - (2) Signals and quick execution code words.
 - (3) DST.
 - (4) Synchronization matrix.
 - (5) FSEM and FSCM.
- c) CPs and staff continue to support the mission.
 - (1) Receive, process, and disseminate information.
 - (3) Coordinate and integrate combat multipliers.

1c. The DS FA battalion commander maintains unit cohesion and discipline during the execution of the battle by: [Battle Command, p. 11-15; FM 22-100, Chap 4, 5, 6]

- 1c1 Checking to ensure that orders are executed and reinforcing discipline by demanding compliance to standards and his guidance.
- 1c3 Displaying a calm presence to subordinates while clearly delineating guidance and providing precise, simple orders and instructions.

- 3. **The direct support field artillery battalion commander visualizes the battlefield** [TRADOC Pam 11-9, Chap 7, App D; ARTEP 6-115-20-MTP, Task 06-1-02-1000, 06-2-02-1000, 06-3-02-1100, 1300, 1500, 1600, 06-1-02-1700; FM 6-20-30, Chap 2, App J; FM 101-5, Chap 3, Appendices F, J]
 - 3a. The DS FA battalion commander updates his estimate based on his assessment of the current situation and new information: [FM 100-5, pp. 2-14, 15; FM 101-5, pp. 1-4 - 1-11, 3-85, Chap 4 and App C; FM 71-3, p. 3-2; Battle Command]
 - 3a6 The DS FA battalion commander assesses the tactical situation and verifies: [FM 101-5, App C; FM 6-20, pp. 3-3 - 3-6]
 - a) Fire support.
 - (3) Synchronization of fire support.
 - (b) Target lists continue to be refined by the brigade FSO and Bn TF FSOs and are synchronized with changes to the brigade or Bn TF schemes of maneuver.
- 6. **The direct support field artillery battalion commander provides leadership and directs planning to ensure that the fire support system is sustained.** [FM 6-20-1, Chap 7; FM 6-20, pp. 3-5 - 3-6]
 - 6a. The DS FA battalion commander initiates the decision-making process for the next mission in order to rapidly transition from the current operation to the next and directs planning to protect the force during the brigade consolidation and reorganization. He directs the batteries to ensure that:
 - 6a1 Fire support systems are mobile and correctly emplaced.
 - 6a2 Components of the fire support system are protected from enemy action ranging from terrorist attack and by-passed enemy forces to indirect fires supporting counter-attacking force.
 - 6b. The brigade commander directs development of a fire support plan that covers the entire unit sector and fills any gaps among adjacent units. (Quick fire planning technique may be required; see Brigade BF 15.) Fires must be planned to:
 - 6b1 Protect reorganizing troops.
 - 6b2 Break up counter-attacks.
 - 6b3 Prevent enemy reinforcement, disengagement, or resupply.

- 6c. The DS FA battalion commander directs the DS FA battalion S3/XO to plan for the hasty reorganization of fire support units. (Deliberate reorganization or reconstitution is not a DS FA battalion commander's prerogative.)
- 6d. The DS FA battalion commander directs the staff to assist in providing support for the brigade during the brigade consolidation. The DS FA battalion coordinating and special staff accomplish the following: [FM 101-5, Chap 4; Battle Command Techniques and Procedures, Chap 2, 3; FM 71-3, App H]
 - 6d1 The DS FA battalion XO:
 - b) Directs and supervises the refurbishment of DS FA battalion units in preparation of the next mission.
 - 6d3 The DS FA battalion S3:
 - e) Focuses upon synchronizing the fires in support of the brigade reorganization and consolidation.
 - f) Ensures that the DS FA battalion XO is aware of the DS FA battalion commander's guidance, intent, and desired endstate for upcoming engagements.
 - g) Together with the DS FA battalion S2 and brigade FSO, revises the fire support plan to support continuing operations.
 - 6d4 The DS FA battalion S4, together with the DS FA battalion XO and FSB commander, regenerates the DS FA battalion's combat power by providing support well forward and addressing:
 - a) The number and type of support units and resources available.
 - b) The DS FA battalion commander's priorities.
 - c) Relevant consumption factors.
 - d) The provision of necessary transportation to batteries to accomplish DS FA battalion directed tasks during continuation of the mission.
 - e) Critical weapons systems.
 - f) The threat to CSS units in general and those moving into the forward battle areas in particular.
 - g) Contingency plans if selected lines of communication (LOCs) are impassable, if the enemy situation in the brigade AO changes, or stocks on hand do not meet requirements.
 - 6d5 The DS FA battalion S1 addresses:
 - a) Allocation of replacement personnel presently in the BSA to batteries based upon the DS FA battalion commander's direction or recommendation of the DS FA battalion S3 or XO.
 - b) Replacement of key leaders lost during previous operations.

- c) Fill of leadership positions down to platoon level.
 - d) Refugee control issues.
 - e) Information on noncombatant activity in the brigade AO and other local population situations.
- 6e. The DS FA battalion commander directs the staff to provide technical support to the batteries.
- 6e1 The DS FA battalion commander ensures that alternate command and control facilities are available.
- 6e2 The DS FA battalion commander ensures that the technical aspects of fire support (meteorology, survey and digital, automated fire control, and communications) are accurate and rapid.

OUTCOME 6 ASSESSMENT

OUTCOME 6: Subordinate leaders demonstrate understanding of the critical elements of their own mission and mission essential tasks, the DS FA Bn mission, and the DS FA Bn commander's intent. (Use Tables 1, 3, and 9)

Assessment Statements

- The DS FA Bn commander meets with subordinate DS FA Bn commanders and leaders to receive information and issue directions.
- The DS FA Bn commander conducts a confirmation brief of a FRAGO (or otherwise receives a briefback) with key battalion leaders to ensure common understanding of the plan and roles of each DS FA Bn unit.
- The DS FA Bn commander evaluates reports from subordinates for their understanding of his intent, concept of operation, and their missions.
- The DS FA Bn XO conducts a confirmation brief with the DS FA Bn staff.
- The DS FA Bn command section monitors compliance of subordinate elements' implementation with commander's decisions, directives, and instructions.
- The DS FA Bn XO monitors all DS FA Bn staff actions for conformity to the DS FA Bn commander's guidance.

OUTCOME 6 DIAGNOSTIC AID

OUTCOME 6: Subordinate leaders demonstrate understanding of the critical elements of their own mission and mission essential tasks, the DS FA Bn mission, and the DS FA Bn commander's intent.

Task Elements

1. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
 - 1a. The DS FA battalion commander directs subordinate forces.
 - 1a1 The DS FA battalion commander takes actions to ensure that subordinate leaders have a clear understanding of his intent and concept. Actions include: [FM 101-5, Chap 1, 4, App B, D, H, J; Battle Command Techniques and Procedures, Chap 2, 4; Battle Command, pp. 10-32]
 - a) Meeting with subordinate commanders and leaders to receive information and issue directions.
 - b) Evaluating reports from subordinates for understanding of his intent, concept of operations, and their missions.
 - 1c. The DS FA battalion commander maintains unit cohesion and discipline during the execution of the battle by: [Battle Command, p. 11-15; FM 22-100, Chap 4, 5, 6]
 - 1c1 Checking to ensure that orders are executed and reinforcing discipline by demanding compliance to standards and his guidance.
 2. **The direct support field artillery battalion commander, with staff assistance, commands, controls, and synchronizes the field artillery cannon battalion fire support operations.** [TRADOC Pam 11-9, Section IV; Battle Command, pp. 43 and 65; ARTEP 6-115-20-MTP; FM 34-130, Chap 2; FM 6-20-40, Chap 2; FM 101-5, Chap 3, 5, App J]
 - 2b. The DS FA battalion CPs evaluate acquired information, update products, and maintain status related to integrating and coordinating fire support for the brigade. [FM 6-20-1 p. 3-1; FM 101-5, Chap 6; ARTEP 6-115-MTP, Task 06-1-02-2500]
 - 2b10 The DS FA battalion CPs maintain status. [FM 6-20-1, pp. 3-1 - 3-6]
 - b) The DS FA battalion ALOC maintains status. [FM 6-20-1, Chap 7]
 - c) The DS FA BSOC maintains status.

- 3. **The direct support field artillery battalion commander visualizes the battlefield** [TRADOC Pam 11-9, Chap 7, App D, ARTEP 6-115-20-MTP, Task 06-1-02-1000, 06-2-02-1000, 06-3-02-1100, 1300, 1500, 1600, 06-1-02-1700; FM 6-20-30, Chap 2, App J; FM 101-5, Chap 3, Appendices F, J]
 - 3a. The DS FA battalion commander updates his estimate based on his assessment of the current situation and new information: [FM 100-5, pp. 2-14, 15; FM 101-5, pp. 1-4 - 1-11, 3-85, Chap 4 and App C; FM 71-3, p. 3-2; Battle Command]
 - 3a3 Identifies changes to friendly (“Troops”) situation:
 - o) Subordinate unit delivery of fires, which include:
 - (1) Battery commanders’ understanding of and actions to achieve the brigade commander’s intent and fire support guidance.
- 4. **The direct support field artillery battalion commander directs changes to the operation or plan** [TRADOC Pam 11-9, Section IV; ARTEP 6-115-20-MTP, Task 06-2-02-1000, 06-3-02-1100, 1130-1190, 1300, 1390; Battle Command, p. 12; FM 6-20-40, Chap 1, 2; FM 101-5, Chap 2, 4]
 - 4c. The DS FA battalion staff coordinates internally and with higher, adjacent, and supporting elements to synchronize the FRAGO. [FM 101-5, App B]
 - 4c4 The DS FA battalion staff understands the DS FA battalion commander’s visualization of synchronization requirements and performs coordination necessary to synchronize the FRAGO.

OUTCOME 7 ASSESSMENT

OUTCOME 7: Soldiers are motivated, disciplined, and maintain unit cohesion during the battle. (Use Table 9)

Component A. DS FA Bn commander and staff take actions to promote discipline and motivation.	Adequate	Marginal	Not Adequate
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Assessment Statements

- The DS FA Bn commander reassures subordinates by a calm manner.
- The DS FA Bn commander gives precise and simple orders.
- The DS FA Bn commander checks to see that orders are carried out.
- The DS FA Bn commander keeps soldiers informed of the situation and makes personal contact with the soldiers.
- The DS FA Bn staff monitors status of unit discipline and morale; informs commander of problems.
- The CSM monitors status of soldiers and communicates this to the DS FA Bn Cdr.

Component B. DS FA Bn units and soldiers exhibit discipline and motivation; units perform cohesively.	Adequate	Marginal	Not Adequate
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Assessment Statements

- Soldiers execute orders effectively.
- Subordinate units perform as a team under pressure of battle.
- Vehicles and equipment show evidence of consistent operator/crew maintenance.

OUTCOME 7 DIAGNOSTIC AID

OUTCOME 7: Soldiers are motivated, disciplined, and maintain unit cohesion during the battle.

Task Elements

Component A. DS FA Bn commander and staff take actions to promote discipline and motivation.

1. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
 - 1c. The DS FA Bn Cdr maintains unit cohesion and discipline during the execution of the battle by: [Battle Command, p. 11-15; FM 22-100, Chap 4, 5, 6]
 - 1c1 Checking to ensure that orders are executed; reinforcing discipline by demanding compliance to standards and his guidance.
 - 1c3 Displaying a calm presence to subordinates while clearly delineating guidance, providing precise, simple orders and instructions.
 - 1c4 Maintaining a moral presence through ethical decision-making and personal example.
 - 1c5 Monitoring subordinates and himself for degradation of mental and physical capability. [Battle Command, pp. 27, 28]
 - a) The DS FA Bn Cdr monitors his own physical and mental state and gets rest.
 - b) DS FA Bn XO monitors the DS FA Bn Cdr's and staff members' physical and mental state and recommends rest periods.
 - c) DS FA Bn Cdr ensures that battery Cdrs and DS FA Bn staff are rested and prepared for battle.
 2. **The direct support field artillery battalion commander, with staff assistance, commands, controls, and synchronizes the field artillery cannon battalion fire support operations.** [TRADOC Pam 11-9, Section IV; Battle Command, pp. 43 and 65; ARTEP 6-115-20-MTP; FM 34-130, Chap 2; FM 6-20-40, Chap 2; FM 101-5, Chap 3, 5, App J]
 - 2a. The DS FA battalion CPs acquire information to assist the DS FA battalion commander. [TRADOC Pam 11-9, Chap 7 and App D]

- 2a12 The DS FA battalion S1 section obtains information related to integrating and coordinating support for the brigade: [ARTEP 6-115-MTP, Task 12-1-C404; FM 101-5, p. C-5; FM 6-20-1, pp. 7-7, 7-21, 7-22]
- c) Personnel information from DIVARTY S1 and division adjutant general
 - (1) Availability of replacements and replacement operations. (including weapons system replacement operations [WSRO]).
 - (2) Postal services.
 - (3) Morale, welfare, and recreation (MWR) support.
- 2c. DS FA battalion CPs and staff communicate information [FM 6-20-1, pp. 3-1 - 3-3; FM 101-5, Chap 5]
- 2c11 The DS FA battalion CSS staff performs coordination with the FSB and supporting CSS headquarters: [FM 6-20-1, pp. 7-8-10]
- e) The DS FA battalion S1 processes awards, decorations, promotions, and legal actions of DS FA battalion personnel.
 - h) The DS FA battalion S1 tracks evacuation of personnel and casualties.

Component B. DS FA Bn units and soldiers exhibit discipline and motivation; units perform cohesively.

- 1. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
- 1c. The DS FA Bn Cdr maintains unit cohesion and discipline during the execution of the battle by: [Battle Command, p. 11-15; FM 22-100, Chap 4, 5, 6]
- 1c1 Checking to ensure that orders are executed; reinforcing discipline by demanding compliance to standards and his guidance.
- 1c2 Observing subordinates:
 - a) For indicators of shortfalls in performance or manner of performance, and takes corrective action as necessary.
 - b) For noteworthy performance that he can praise and recognize in other ways.

¹ Observers should appraise DS FA Bn personnel and units for indicators of morale, discipline, and cohesion.

- 2. **The direct support field artillery battalion commander, with staff assistance, commands, controls, and synchronizes the field artillery cannon battalion fire support operations.** [TRADOC Pam 11-9, Section IV; Battle Command, pp. 43 and 65; ARTEP 6-115-20-MTP; FM 34-130, Chap 2; FM 6-20-40, Chap 2; FM 101-5, Chap 3, 5, App J]
- 2a. The DS FA battalion CPs acquire information to assist the DS FA battalion commander. [TRADOC Pam 11-9, Chap 7 and App D]
- 2a12 The DS FA battalion S1 section obtains information related to integrating and coordinating support for the brigade: [ARTEP 6-115-MTP, Task 12-1-C404; FM 101-5, p. C-5; FM 6-20-1, pp. 7-7, 7-21, 7-22]
 - d) Morale and discipline indicators from DS FA battalion special staff officers and battery commanders
 - (1) Battery reports of stragglers, AWOLs, and absences from place of duty.
 - (2) Sick call and stress casualties from the DS FA battalion surgeon.
 - (3) Advice from the CSM on the state of morale and discipline.

OUTCOME 8 ASSESSMENT

OUTCOME 8: The DS FA Bn command, control, and intelligence (C3I) capability is effective, survives, and is prepared for the next mission.	Adequate	Marginal	Not Adequate
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(Use Tables 1 and 2)

Assessment Statements

- The DS FA Bn CPs take actions (e.g., reposition) to enhance survivability.
- If a DS FA Bn CP is lost (damaged, destroyed, captured, unable to communicate), survivors move to an alternate CP which assumes control of the functions of the CP that was lost.
- If needed, succession of command is implemented as per the DS FA Bn plan or TSOP.
- At change of mission, the DS FA Bn commander confirms that the DS FA Bn is prepared to continue the mission.

OUTCOME 8 DIAGNOSTIC AID

OUTCOME 8: The DS FA Bn command, control, and intelligence (C3I) capability is effective, survives, and is prepared for the next mission.

Task Elements

1. **The direct support field artillery battalion commander directs and leads subordinate forces.** [TRADOC Pam 11-9, Chap 7 and App D]
 - 1a. The DS FA battalion commander directs subordinate forces.
 - 1a2 The DS FA battalion commander positions himself on the battlefield where he can best fulfill both his responsibilities as the FSCoord to the brigade commander and as the DS FA battalion commander.
 - b) As the DS FA battalion commander, when required is in the DS FA battalion area to best exercise his commander duties.
 - c) Delegates specific duties to his XO and S3 to provide for freedom of movement to execute his duty as brigade FSCoord.
5. **The direct support field artillery battalion command posts manage and maintain command, control, and communications.**
 - 5a. DS FA battalion CPs manage means of communicating information. [FM 101-5, Chap 6, App B, L; ARTEP 6-115-MTP, Task 06-3-01-2150, 2160, 2120]
 - 5a6 Trains CPs (ALOC/BSOC).
 - a) DS FA battalion XO is the second in command of the battalion. He is the senior staff officer of the unit and serves as the primary logistician. [FM 6-20-1, p. 3-4]
 - (1) Supervises the activities of the CSS staff.
 - (3) Makes face-to-face contact with his counterparts on the brigade, DIVARTY, and FSB staff and ensures that the DS FA battalion is supported with a minimum of confusion or lost effort.
 - b) The ALOC positions during mission execution to conduct rapid movement of emergency CL III and V forward to support the DS FA battalion. [FM 6-20-1, p. 7-8]

- (2) Rapidly assumes the functions of the TOC if required.
- c) The DS FA battalion S4, assisted by the PSNCO, supervises ALOC operations. [FM 6-20-1, p. 7-5; FM 6-20-40, p. F-4]
 - (2) Monitors the tactical situation and maintains communications to ensure that ALOC is prepared to assume duties of the DS FA battalion TOC if needed.
- 5b. The DS FA battalion CPs maintain command, control, and communications (C3) throughout the battle. [FM 6-20-40, p. 26; FM 6-20-50, App C; FM 101-5, Chap 5 and 6, App A, B, L]
- 5b1 Positioning is such that the DS FA battalion commander maintains communications with brigade, DIVARTY, reinforcing battalion, and subordinate units to provide continuous fire support to the force during the battle and the consolidation and reorganization phase. [FM 6-20-1, p. 3-25]
 - a) The DS FA battalion commander exercises command and control during mission execution.
 - b) DS FA battalion, battery, and platoon CPs displace, as required, during mission execution to provide the most responsive fire support during the battle.
- 5b2 The DS FA battalion CPs take action to survive: [FM 6-20-1, p. 3-25]
 - a) DS FA battalion staff ensures that CPs are not detected by the enemy by using passive defense measures.
 - b) The DS FA battalion CPs use cover, concealment, and routes which reduce detection by the enemy.
 - c) Local security is structured to provide early warning, perimeter protection, and a reaction force for immediate response.
 - d) OPSEC is continually monitored.
- 5b3 Communications are maintained without interruption with all subordinate elements and brigade to allow the DS FA battalion commander and staff to exercise command and control. [FM 6-20-1, p. 3-26]
- 5c. The DS FA battalion re-establishes C3 operations in the event of the loss or destruction of the TOC. [FM 101-5, Chap 5, App B; Battle Command Techniques and Procedures, Chap 4]
- 5c1 In the event of a catastrophic loss of communications, C3 for the DS FA battalion is assumed per the DS FA battalion TSOP or plan. Continuity of operations for the DS FA battalion is a function of the automated fire control present in the battalion.
 - a) Tactical fire direction system (TACFIRE).
 - (1) Control assumed by reinforcing battalion TOC in mutual support unit role. (First priority).
 - (2) Control assumed by a pre-designated battery. (Second priority for degraded operations).

- b) IFSAS/light TACFIRE.
- (1) In the event of a loss of the dual station FDC, mutual support can be assumed by any pre-designated single station briefcase terminal/lap-top computer unit. Priorities for continuity of operations:
 - (a) DS FA battalion O&I.
 - (b) The brigade FSE.
 - (c) Reinforcing battalion.
 - (d) Autonomous operations.
 - (2) Activation of mutual support requires proper system initialization and command authorization.
- c) AFATDS.
- (1) AFATDS software and distributed architecture provide internodal (within an operational facility [OPFAC]) and intranodal (external OPFAC) continuity of operations.
 - (2) Continuity of operations is a battle drill necessary for any operation.
 - (3) Listed below are the primary backup units for the divisional AFATDS nodes. Secondary back up units may be established based on the DS FA battalion TSOP.

Principal	Primary Backup	Secondary Backup
Division Main FSE	Division TAC FSE	Division Artillery O&I
Division TAC FSE	Division Main FSE	Division Artillery O&I
Division Artillery	Reinforcing Bde	
Bde FSE	Bde TAC	DS Bn FDC
DS Bn FDC	DS Bn O&I	Reinforcing Bn FDC or Bde FSE
DS Artillery Bn CP	Reinforcing FA battalion	Bde FSE

5d. Succession of command is implemented as per the DS FA battalion TSOP.

5d1 The DS FA battalion XO, as second in command of the DS FA battalion:

- a) As soon as it is confirmed that the DS FA battalion commander is killed, captured, or evacuated from the brigade AO, the DS FA battalion XO assumes command of the battalion.
- b) Notifies the DIVARTY commander and brigade commander.
- c) Informs subordinate units that he has assumed command until further notice.
 - (1) If operating as the senior logistician at the ALOC/BSOC, determines the status of operations at the TOC or acting TOC.
 - (2) Moves forward to reestablish a CP if necessary.

- (3) Moves to the brigade CP to ensure that fire support operations continue uninterrupted as planned.
- d) Links-up with the brigade commander.

5d2 The DS FA battalion S3:

- a) Continues to command and control the DS FA battalion elements from the TOC until the battalion XO has been informed of the tactical situation and is in position to assume command.
- b) Informs the batteries and reinforcing battalion of succession of command.

6. **The direct support field artillery battalion commander provides leadership and directs planning to ensure that the fire support system is sustained.** [FM 6-20-1, Chap 7; FM 6-20, pp. 3-5 - 3-6]

6a. The DS FA battalion commander initiates the decision-making process for the next mission in order to rapidly transition from the current operation to the next and directs planning to protect the force during the brigade consolidation and reorganization. He directs the batteries to ensure that:

6a1 Fire support systems are mobile and correctly emplaced.

6a2 Components of the fire support system are protected from enemy action ranging from terrorist attack and by-passed enemy forces to indirect fires supporting a counter-attacking force.

6c. The DS FA battalion commander directs the DS FA battalion S3/XO to plan for the hasty reorganization of fire support units. NOTE: Deliberate reorganization or reconstitution is not a DS FA battalion commander's prerogative. Deliberate reorganization is a permanent restructuring of the unit and must be approved by the parent unit commander one echelon higher than the unit reorganized. Regeneration requires that the unit be pulled out of combat and is not a prerogative of the battalion commander. The CSS plan should, from its inception, have planned for an immediate resupply of CL I/III/V at the conclusion of a major fight. These supplies should be on stand-by in the combat trains, and the tentative location and distribution scheme (by TSOP) should already be rehearsed as part of the operation.

6c1 Provide unit personnel:

- a) Personnel support functions (cross leveling units, MWR functions).

6c2 Ensure that vehicles and individual and crew-served weapons are serviced and maintained. Repair deadlined or combat damaged equipment using repair parts available.

- 6e. The DS FA battalion commander directs the staff to provide technical support to the batteries.
- 6e1 The DS FA battalion commander ensures that alternate command and control facilities are available.
- 6e2 The DS FA battalion commander ensures that the technical aspects of fire support (meteorology, survey and digital, automated fire control, and communications) are accurate and rapid.
- 6f. The DS FA battalion commander confirms that the DS FA battalion is prepared to continue the mission. Confirmation criteria include: [AN]
 - 6f1 All DS FA battalion elements report successful resupply, refit, and regeneration of combat power.
 - 6f2 The DS FA battalion S3 reports all DS FA battalion C3 facilities, CPs, and systems are fully operational.
 - 6f3 The DS FA battalion S2 reports that all intelligence systems are fully operational.
 - 6f4 The DS FA battalion S3 reports that all fire support systems are fully operational and that FA assets are mission capable.
 - a) Firing units/batteries.
 - b) Bn TF/company FSOs.
 - c) FIST/FIST-Vs.
 - d) COLT/FIST-Vs.
 - e) Target acquisition systems.
 - f) Air and naval gunfire liaison company firepower control teams.

PRODUCT REVIEW MEASURES OF EFFECTIVENESS

The following tables and questions examine various aspects of directing and leading units in battle. Table 1 measures the battalion's execution of planned and unplanned tasks (targets of opportunity) during mission execution. Table 2 is about the operation and monitoring of communications nets. Table 3 provides a place to record whether all critical information was communicated among staff sections, key leaders, and headquarters of higher, adjacent and subordinate units. Table 4 is about the updating of operations products during execution. Table 5 is about where leaders were positioned, and provides a place to note any key leaders who were rendered combat ineffective, and whether the succession plan was executed effectively. Table 6 is about the evaluation of the tactical situation by the commander and staff. Table 7 asks about tactical decision making. Table 8 is about time management. Table 9 is concerned with the integration and coordination of the elements of combat power available to the artillery battalion. Table 10 is concerned with the commander's overall leadership during mission execution.

Table 1. Fire Support provided to the armored brigade.

The following table is designed to capture the result of the DS FA Bn commander's direction and leadership manifested in terms of support to the armored brigade. Focus is on the command and control battlefield operating system (BOS) as opposed to other BOS, e.g., fire support (example: fires that fail to accomplish their purpose could be the result of the maneuver commander's failure to integrate fire support with maneuver during mission execution). Also, when assessing the results of direction and leadership, care must be taken to attribute direct responsibility to the appropriate echelon of command. For example, ineffective fires could well be the result of a bad decision by a TF commander or a map reading deficiency of a company commander; neither of those deficiencies would directly involve the DS FA Bn commander in his role as the brigade FSCOORD. Indicate by circling "Yes" or "No" if the DS FA Bn commander's direction and leadership resulted in the provision of fire support in accordance with the brigade commander's intent. Record additional information about the circumstances in the space following the table.

DS FA Bn mission (as appropriate)	Deep battle?	Close battle?	Rear battle?	Consolidation & reorganization?
	Yes No	Yes No	Yes No	Yes No
	Yes No	Yes No	Yes No	Yes No
	Yes No	Yes No	Yes No	Yes No
	Yes No	Yes No	Yes No	Yes No

Add details as appropriate concerning mission accomplishment:

Table 2. Operation and monitoring of communication nets.

Leave the block unmarked if communication was maintained to a degree that all information was transmitted and received. If non-critical information was lost because of interruptions in communication, enter an “M” (for Marginal performance). If critical information was not received, tag the incident by entering a number in sequence (1, 2, 3, ...) and then indicate below the table the nature of the critical information that *was not* received (use METT-T factors to describe this information).

Communication Nets	TOC	ALOC	BSOC
DS FA Bn command (voice)			
Brigade command (voice)			
DS FA Bn fire support nets (voice and digital)			
DS FA Bn fire direction nets (voice and digital)			
DS FA Bn operations/fire (digital)			
DS FA Bn A/L (voice)			
Division artillery (DIVARTY) command (voice)			
DIVARTY operations/fire (voice and digital)			
Brigade A/L			

Briefly describe incidents of information not received (what METT-T information was not received and what happened because of this failure to communicate the information):

Table 3. Communication among staff sections, higher, adjacent, and subordinate units.

Complete this table by tagging each incident in which critical information was NOT communicated from one element to another. Bde key personnel are indicated in the horizontal row at the top of the table. Listed vertically in the left column are the same positions followed by key personnel external to the battalion. Each occurrence of failure to communicate should be given an identification number on the chart for reference purposes. Insert the identifying number (in sequence: 1, 2, 3,...) in the appropriate cell. Following the table is space for notes on the nature of the problem. EXAMPLES OF USE: a) If in the first incident of failure to communicate during an exercise, the DS FA Bn S2 had failed to inform the Bn commander and the Bn S3 about change to enemy capabilities, the observer would annotate "1" in the cells at the intersection of the S2 vertical column and the horizontal row for the Bn commander and the Bn S3. In the foregoing example, the observer might also record at the end of the table, "1: Bn S2 did not appear to recognize significance of movement forward of enemy artillery batteries." b) If the second incident of failure to communicate was that the Bn S4 had not provided information to the FSB support operations officer, the observer would annotate "2" in the cell at the intersection of the Bn S4 column and the division ammunition officer (DAO) row. The clarifying note would show "2: Bn S4 failed to provide warning information about emergency supply of Class V." c) If in a third incident, the Bn S3 had failed to communicate with the service battery about a support matter, the observer would annotate "3" at the intersection of the Bn S3 vertical column and the service battery row. The clarifying note at the bottom of the table might show, "3: Bn S3 radio problem prevented timely transmission of information about a decontamination site opening at Grid_____." d) If the fifth incident was the inability of the DIVARTY to provide information on replacements to the Bn S1, the observer would annotate "5" in the cell formed at the intersection of the DIVARTY row and that TF's column. The note might reflect "5: Replacements arrived without warning. Unknown at this time why DIVARTY failed to inform Bn S1."

Table 3. (Continued)

	DS FA Bn Cdr	DS FA Bn CSM	DS FA Bn S1	DS FA Bn S2	DS FA Bn S3	DS FA Bn S4	DS FA Bn XO	HQ and HQ Battery	Service Battery	DS FA Bn Survey Officer	DS FA Bn Ammo Officer	DS FA Bn FDO	A Battery Cdr	B Battery Cdr	C Battery Cdr
Internal communication:															
DS FA Bn Cdr															
DS FA Bn CSM															
DS FA Bn S1															
DS FA Bn S2															
DS FA Bn S3															
DS FA Bn S4															
DS FA Bn XO															
HQ and HQ Battery															
Service Battery															
DS FA Bn Survey Officer															
DS FA Bn Ammo Officer															
DS FA Bn FDO															
A Battery Cdr															
B Battery Cdr															
C Battery Cdr															
External communications:															
Brigade Commander															
Brigade S3															
Brigade FSO/FSE															
TF A FSO															
TF B FSO															
TF C FSO															
Engineer Bn Cdr															

Table 3. (Continued)

	DS FA Bn Cdr	DS FA Bn CSM	DS FA Bn S1	DS FA Bn S2	DS FA Bn S3	DS FA Bn S4	DS FA Bn XO	HQ and HQ Battery	Service Battery	DS FA Bn Survey Officer	DS FA Bn Ammo Officer	DS FA Bn FDO	A Battery Cdr	B Battery Cdr	C Battery Cdr
FSB Cdr															
Division Ammo Officer (DAO)															
Division FSE															
DIVARTY Cdr															
DIVARTY CSM															
DIVARTY S1															
DIVARTY S2															
DIVARTY S3															
DIVARTY S4															

Tag incidents with a number. Briefly describe incidents of information not received (what METT-T information was not received and what happened because of this failure to communicate the information):

Table 4. Updates of operations products during execution.

This table is intended to show whether each CP and section maintained accurate and current operations products. Products listed may be employed by the DS FA Bn headquarters to update and collate information so that appropriate actions may be taken to conduct a synchronized battle. Some of these items are not required by doctrine or unit TSOP, so circle “N/A” if the item was not required by the TSOP or the particular section. If the item was required, then circle “Yes” if it was continually updated to be complete, accurate, and current, or “No” if it wasn’t. On the following page, briefly state the consequences of any inaccurate or out-dated information reflected on a particular product. (There may be no consequences or impact in some instances.)

Products that may be employed by the DS FA Bn:	TOC	ALOC	BSOC
Operations overlay: (DS FA Bn, brigade, adjacent units, and fire support units in the brigade sector)	N/A Yes No	N/A Yes No	N/A Yes No
Situation template overlay	N/A Yes No	N/A Yes No	N/A Yes No
Event template overlay	N/A Yes No	N/A Yes No	N/A Yes No
Modified combined obstacle overlay (MCOO)	N/A Yes No	N/A Yes No	N/A Yes No
Fire support overlays	N/A Yes No	N/A Yes No	N/A Yes No
Decision support template (DST)	N/A Yes No	N/A Yes No	N/A Yes No
Synchronization matrix	N/A Yes No	N/A Yes No	N/A Yes No
Attack guidance matrix	N/A Yes No	N/A Yes No	N/A Yes No
High payoff target list (HPTL)	N/A Yes No	N/A Yes No	N/A Yes No
Fire support execution matrix (FSEM)	N/A Yes No	N/A Yes No	N/A Yes No
Position area overlay (artillery battery positions within brigade area)	N/A Yes No	N/A Yes No	N/A Yes No
Situation posted on appropriate maps	N/A Yes No	N/A Yes No	N/A Yes No
NBC overlay	N/A Yes No	N/A Yes No	N/A Yes No
Consolidated XO report status	N/A Yes No	N/A Yes No	N/A Yes No
Disposition of collection assets/target acquisition overlay	N/A Yes No	N/A Yes No	N/A Yes No
Fire support coordination measures (including airspace coordination)	N/A Yes No	N/A Yes No	N/A Yes No

Table 4. (Continued)

Products that may be employed by the DS FA Bn:	TOC	ALOC	BSOC
Plans map (with overlays for future operations)	N/A Yes No	N/A Yes No	N/A Yes No
Journals/logs	N/A Yes No	N/A Yes No	N/A Yes No
CSS situation map and overlay	N/A Yes No	N/A Yes No	N/A Yes No
Other (1) _____	N/A Yes No	N/A Yes No	N/A Yes No
Other (2) _____	N/A Yes No	N/A Yes No	N/A Yes No

For the products that are marked “No” in the previous table, indicate the CP or section and product, the information that was out-dated or inaccurate, the time when the update should have occurred (information was available and could have been posted), and the impact on the mission.

CP or Section/Product	Inaccurate/out-dated information (and time when update should have occurred)	Impact on mission

Table 5. Locations of leaders during execution phase and succession of command or critical position.

Parts a and b of the table were designed to capture whether leaders were at appropriate locations during the critical events of mission execution. Five sections make up this measure. Describe the key events and the leader's location by filling in the blanks. Then, circle "Yes" or "No" in each box to record whether the leaders were positioned to exercise C2. Parts c, d, and e are concerned with continuity of command and control.

a. Key event during execution: (Fill in events and locations, as needed.)	Were leaders in appropriate position to exercise command and control of the event?				
	DS FA Bn Commander	DS FA Bn S3	DS FA Bn XO	Other _____	Other _____
1. Start (e.g., preparatory fires)	Yes No	Yes No	Yes No	Yes No	Yes No
2.	Yes No	Yes No	Yes No	Yes No	Yes No
3.	Yes No	Yes No	Yes No	Yes No	Yes No
4.	Yes No	Yes No	Yes No	Yes No	Yes No
5.	Yes No	Yes No	Yes No	Yes No	Yes No

b. Briefly remark on any consequences for the conduct of the battle due to key leaders not being in position at critical events:

Table 5. (Continued)

c. If the DS FA Bn Cdr, or the S3, or XO was rendered ineffective during execution, indicate the key event ongoing at that time.

Key event and time:

DS FA Bn Cdr _____; S3 _____; XO _____

d. Briefly indicate the reason for the leader being rendered ineffective (e.g., loss of communication, vehicle disabled, leader wounded, killed, captured, became lost).

Reason for becoming ineffective:

DS FA Bn Cdr _____; S2/3 _____; XO _____

e. Determine if the succession of command procedure was executed effectively. Enter the time of each event in the first three columns. Circle “Yes” or “No” to indicate whether the succession was executed effectively.

Succession of command executed effectively:

Leader	Time successor notified:	Time successor took command:	Time successor able to exercise control:	Was succession executed effectively?	
DS FA Bn commander				Yes	No
S3				Yes	No
XO				Yes	No
Other				Yes	No

Notes:

Table 6. Evaluation of tactical situation.

This table elaborates on the evaluation of information and decision-making processes of the DS FA Bn commander and staff during execution of the battle. Possible factors that the commander should include in his estimate are listed by METT-T. It may be necessary to add other factors. The first rating is whether the commander and staff had an accurate perception of each factor when they issued their orders (OPORD or FRAGO). The second rating concerns whether the factor actually changed as a result of battle preparations or during execution of battle. The third column addresses whether the change was detected. The fourth column calls for an observer judgment about whether the response was or was not appropriate.

Factors	Were Bn Cdr and staff estimates based on accurate perceptions of the situation when orders were issued?	Did the situation change?	Was the change detected?	Was reaction to change appropriate?
Mission				
Brigade commander's intent	Yes No	Yes No	0 1 2 3	Yes No
DIVARTY commander's intent	Yes No	Yes No	0 1 2 3	Yes No
DS FA Bn commander's intent	Yes No	Yes No	0 1 2 3	Yes No
Brigade concept of operation	Yes No	Yes No	0 1 2 3	Yes No
Brigade concept of fires	Yes No	Yes No	0 1 2 3	Yes No
Artillery task organization	Yes No	Yes No	0 1 2 3	Yes No
Other--	Yes No	Yes No	0 1 2 3	Yes No
Enemy Situation				
Activity	Yes No	Yes No	0 1 2 3	Yes No
Locations (especially HPTs)	Yes No	Yes No	0 1 2 3	Yes No
Other--	Yes No	Yes No	0 1 2 3	Yes No

Table 6. (Continued)

Factors	Were Bn Cdr and staff estimates based on accurate perceptions of the situation when orders were issued?	Did the situation change?	Was the change detected?	Was reaction to change appropriate?
Friendly Troops Location and Status				
Disposition and locations of brigade units	Yes No	Yes No	0 1 2 3	Yes No
Disposition and locations of FA units and other fire support assets	Yes No	Yes No	0 1 2 3	Yes No
Disposition and locations of target acquisition and collection systems	Yes No	Yes No	0 1 2 3	Yes No
Locations and status of artillery radars	Yes No	Yes No	0 1 2 3	Yes No
Equipment and personnel status of FA units	Yes No	Yes No	0 1 2 3	Yes No
Ammunition status	Yes No	Yes No	0 1 2 3	Yes No
CSS capability to sustain fire support	Yes No	Yes No	0 1 2 3	Yes No
Capability to identify, track, and fire HPTs in accordance with (IAW) priorities	Yes No	Yes No	0 1 2 3	Yes No
Target lists (or fire plans)	Yes No	Yes No	0 1 2 3	Yes No
Fires identified for obstacles and FASCAM employment	Yes No	Yes No	0 1 2 3	Yes No
Other--	Yes No	Yes No	0 1 2 3	Yes No
Terrain (Area of Operations)				
Weather effects on meteorological calculations	Yes No	Yes No	0 1 2 3	Yes No
Weather effects on movement	Yes No	Yes No	0 1 2 3	Yes No

Table 6. (Continued)

Factors	Were Bn Cdr and staff estimates based on accurate perceptions of the situation when orders were issued?	Did the situation change?	Was the change detected?	Was reaction to change appropriate?
Terrain effects on movement	Yes No	Yes No	0 1 2 3	Yes No
Terrain effects at firing positions	Yes No	Yes No	0 1 2 3	Yes No
Other--	Yes No	Yes No	0 1 2 3	Yes No
Time				
Time to coordinate missions	Yes No	Yes No	0 1 2 3	Yes No
Times for planned events	Yes No	Yes No	0 1 2 3	Yes No
Other--	Yes No	Yes No	0 1 2 3	Yes No
Commander's overall assessment of METT-T				
DS FA Bn is able to execute mission	Yes No	Yes No	0 1 2 3	Yes No
DS FA Bn is able to support brigade forces in contact	Yes No	Yes No	0 1 2 3	Yes No

Table 7. Tactical decision making.

The following table is about the tactical decisions made during the execution of the battle. During the course of the battle, there will be one or more key events or changes in METT-T that will cause the DS FA Bn commander to make tactical decisions (which include altering the current plan or continuing to follow the plan as originally developed). These key events should be noted, and the tactical decision should be appraised in terms of:

- the quality of the recommendations made to the commander, and
- the quality of the selected course of action (COA).

Tactically sound recommendations are consistent with the actual METT-T and will produce positive results. Other criteria of tactical soundness are that the commander receives all critical information, has enough time to make a decision, and has enough time to transmit it to subordinates in time for them to carry out the desired actions. When examining either the old COA or a newly developed COA, determine whether it also met the following criteria:

- Suitable:** Will accomplish the mission and meet the intent of the brigade commander.
Feasible: DS FA Bn has the time, means, and physical resources to execute the COA.
Acceptable: COA does not unduly risk personnel, equipment, or mission accomplishment.
Rapid enough: Commander's decision is made and disseminated in time to permit units to carry out the desired actions.

Key decision point:	Staff recommendations		DS FA Bn commander's decision			
	Tactically sound?	To Cdr in time?	Suitable?	Feasible?	Acceptable?	Rapid enough?
	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No
	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No
	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No
	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No

Table 7. (Continued)

Briefly describe the result of any instances in Table 7 for which you circled “No.” These results should be described in terms of what the DS FA Bn was unable to do to support the armored brigade, and why the DS FA Bn was not able to provide the required support.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Table 8. Execution timelines.

Enter the date and time that each sequence (Cdr's decision, issuance of WARNO, issuance of FRAGO, receipt of FRAGOs) occurred within context of current battle. WARNOs and FRAGOs may be oral versus written. If a decision was made, but no WARNO was issued, leave that column blank. If a WARNO was issued, but no FRAGO was issued, leave that column blank. Columns are provided to record times units received their orders. Use more than one row to record different times. If a FRAGO was issued and a subordinate unit(s) was not able to execute the required action, describe circumstances in the space following the table. If a WARNO was issued, but no FRAGO was issued and the unit did not initiate any action implied by the WARNO, leave the FRAGO columns and last column blank.

DS FA Bn Cdr decision:	WARNO issued:	Time of receipt of WARNO by affected units:	FRAGO issued:	Effective time for task execution by units:	Time of receipt of FRAGO by units required to execute tasks:
Date/Time:	Date/Time:	Unit: Date/Time:	Date/Time:	Date/Time:	Unit: Date/Time:
Date/Time:	Date/Time:	Unit: Date/Time:	Date/Time:	Date/Time:	Unit: Date/Time:
Date/Time:	Date/Time:	Unit: Date/Time:	Date/Time:	Date/Time:	Unit: Date/Time:
Date/Time:	Date/Time:	Unit: Date/Time:	Date/Time:	Date/Time:	Unit: Date/Time:

Notes:

Table 9. Integration and coordination of combat, combat support, and combat service support.

Intent of this table is to record the DS FA Bn commander's and staff's ability to integrate and coordinate the elements of combat power represented by combat, combat support, and combat service support capabilities available to the DS FA Bn. "Integrated" and "coordinated" mean that the activities of the available elements of combat power were effectively brought to bear on the battle at the appropriate times with the result that they were available to influence mission accomplishment as envisioned by the DS FA Bn commander. The commander's and staff's actions during the execution phase must cause the elements of combat power to be deconflicted vertically, horizontally, and within the BOS to ensure that they can be brought together in a harmonious order or relationship during the battle. (Subsequent to this integration and coordination, the brigade commander will synchronize the capabilities of all of the elements of the brigade combat team.) Circle the response appropriate for the integration and coordination for each element of combat power. For those elements of combat power listed in the table but not available to the DS FA Bn, the observer should circle "N/A".

Considerations	Integrated and Coordinated?	
Intelligence, e.g.: <ul style="list-style-type: none"> Positioning, operating parameters for radars Acquisition of information 	Yes N/A	No
Command and Control, e.g.: <ul style="list-style-type: none"> Communications networks CP locations Location of Bn Cdr (demands of FA Bn command vs. Bde FSCOORD) Rehearsals' schedules 	Yes N/A	No
Maneuver, e.g.: <ul style="list-style-type: none"> Movement Deconfliction of positioning 	Yes N/A	No

Table 9. (Continued)

Considerations	Integrated and Coordinated?	
Fire Support, e.g.: <ul style="list-style-type: none"> • FSCMs • JAAT • SEAD • Naval surface fires (NSF) (if available) • Rear area combat operations (RACO) • Positioning of observers • FASCAM • TFs' fire plans 	Yes N/A	No
Mobility and Survivability, e.g.: <ul style="list-style-type: none"> • Breaches and crossings • Survivability positions • Decontamination sites 	Yes N/A	No
Air Defense, e.g.: <ul style="list-style-type: none"> • Combined arms for air defense (CAFAD) • ADA protection 	Yes N/A	No
Combat Service Support, e.g.: <ul style="list-style-type: none"> • Vehicle and equipment recovery and repair • Delivery of CL V • Emergency resupply • Stockpiling and caches 	Yes N/A	No

Table 10. DS FA battalion overall leadership.

This table is designed to capture aspects of the brigade commander's leadership during mission preparation. Process statements are used to describe an aspect of the planning process. A numerical scale is included to identify the degree of proficiency to which the process was accomplished. Circling "1" on the scale means the task was not accomplished. ("2" and "3" are provided to differentiate between extremes.) Circling "2" means the task was poorly accomplished; "3" indicates the task was accomplished but requires training. Circling "4" means the task was performed IAW doctrine. The paragraphs under the process statements are "anchors" to guide the assessor when determining whether the process statements were accomplished. The "anchors" are not meant to be all inclusive.

DS FA Bn commander was not receptive to new information.	1	2	3	4	DS FA Bn commander sought and accepted new information.
DS FA Bn commander guidance and directives to staff had too little or too much detail.	1	2	3	4	DS FA Bn commander gave the staff the guidance and directives they needed.
DS FA Bn commander did not synchronize support at critical points.	1	2	3	4	DS FA Bn commander synchronized support at critical points.
DS FA Bn commander did not keep soldiers informed of the current situation.	1	2	3	4	DS FA Bn commander kept soldiers informed of the current situation.
DS FA Bn commander did not share hardships and dangers of his soldiers.	1	2	3	4	DS FA Bn commander did share hardships and dangers of his soldiers.
DS FA Bn commander did not ensure that soldiers have the opportunity to rest and eat as conditions permitted.	1	2	3	4	DS FA Bn commander ensured that soldiers had the opportunity to rest and eat as conditions permitted.
DS FA Bn commander did not check to see that his orders were carried out.	1	2	3	4	DS FA Bn commander checked to see that his orders were carried out.

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Field Manuals (FMs)

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6-20	Fire Support in the Airland Battle, May 1988
6-20-1	The Field Artillery Cannon Battalion, November 1990
6-20-10	T.T.P. for The Targeting Process, February 1995
6-20-30	Fire Support for Corps and Division Operations, October 1989
6-20-40	Fire Support for Brigade Operations (Heavy), January 1990
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6-40	Field Artillery Manual Cannon Gunnery, 23 April 1996
22-100	Military Leadership, July 1990
34-130	Intelligence Preparation of the Battlefield, July 1994
63-20	Forward Support Battalion, February 1990
71-3	Armored and Mechanized Infantry Brigade, 8 January 1996
100-5	Operations, June 1993
101-5	Command and Control for Commanders and Staff, August 1993

Army Training and Evaluation Programs (ARTEPs)

3-117-40	Mission Training Plan for Chemical Section and NBC Center, 29 September 1994
6-115-MTP	MTP for Field Artillery Cannon Battalion Headquarters and Headquarters Battery, Headquarters, Headquarters and Service Battery; or Service Battery, November 1990
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71-3-MTP	MTP for the Heavy Brigade Command Group and Staff, October 1988

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Battle Command: Leadership and Decision Making for War and Operations Other than War, Battle Command Laboratory, Fort Leavenworth, KS. April 1994

Battle Command Techniques and Procedures: A Commander's Guide for the Coordination and Execution of Battlefield Operating Systems, Battle Command Battle Laboratory, Fort Leavenworth, KS. April 1995

TC 6-40A Field Artillery Automated Cannon Bunnery, 21 April 1989

BF 15: "Task Analysis for Coordinate, Synchronize, and Integrate Fire Support as Accomplished by a Brigade Combat Team" Authors: Bartholomew J. McIlroy, Jr., William J. Mullen III, J. Douglas Dressell, and Franklin L. Moses. August 1996

Appendix A

ACRONYMS AND ABBREVIATIONS

A2C2	Army airspace command and control
AAR	after action review
ACA	airspace coordination area
ADA	air defense artillery
AFATDS	advanced field artillery tactical data system
AGM	attack guidance matrix
A/L	administrative/logistics
ALO	air liaison officer
ALOC	administration and logistics operation center
ammo	ammunitions
AN	author note
AO	area of operations
App	appendix
ARI Sciences	U.S. Army Research Institute for the Behavioral and Social
ARTEP	Army Training and Evaluation Program
ASL	authorized stockage list
ASP	ammunition supply point
ASR	alternate supply route
ATI	artillery target intelligence
ATP	ammunition transfer point

AWOL	absent without leave
BAO	battalion/brigade ammunition officer
BDA	battle damage assessment
Bde	brigade
BF	battlefield function
BMO	battalion maintenance officer
Bn	battalion
BOS	battlefield operating system(s)
BSA	brigade support area
BSO	brigade/battalion signal officer
BSOC	battalion support operations center
C2	command and control
C3	command, control, and communications
C3I	command, control, communications, and intelligence
CAFAD	combined arms for air defense
CAS	close air support
CCF	critical combat function
CCIR	commander's critical information requirements
Cdr	commander
CL	Class
CL I	subsistence items

CL III	petroleum, oils, lubricants
CL V	ammunition
CL VIII	medical material
CL IX	repair parts and components
CMLO	chemical officer
COA	course of action
COLT	combat observation lasing team
CP	command post
CPX	command post exercise
CSM	command sergeant major
CSR	controlled supply rate
CSS	combat service support
DAO	division ammunition officer
DIVARTY	division artillery
DPICM	dual purpose improved conventional munitions
DS	direct support
DST	decision support template
DTDD	Directorate of Training and Development Doctrine
EEFI	essential elements of friendly information
EPW	enemy prisoner of war
EW	electronic warfare

FA	field artillery
FAC	forward air control
FASCAM	family of scatterable mines
FASP	field artillery support plan
FDC	fire direction center
FDO	fire direction officer
FFIR	friendly force information requirements
FIST	fire support team
FIST-V	fire support team vehicles
FM	field manual
FO	forward observer
FPF	final protective fire
FRAGO	fragmentary order
FSB	forward support battalion
FSCL	fire support coordination line
FSCM	fire support coordinating measure
FSCOORD	fire support coordinator
FSE	fire support element
FSEM	fire support execution matrix
FSO	fire support officer
FTX	field training exercise
FXXITP	Force XXI Training Program

GS	general support
GSR	general support reinforcing; ground surveillance radar
HHB	headquarters and headquarters battery
HPT	high payoff target
HPTL	high payoff target list
HQ	headquarters
IAW	in accordance with
IFSAS	improved fire support automation system
INTSUM	intelligence summary
IPB	intelligence preparation of the battlefield
IR	information requirement
ITTBBST	Innovative Tools and Techniques for Brigade and Below Staff Training
JAAT	joint air attack team
LNO	liaison officer
LOC	lines of communication
M/CM/S	mobility/countermobility/survivability
MCOO	modified combined obstacle overlay
MDMP	military decision-making process
MEDEVAC	medical evacuation
METT-T	mission, enemy, terrain, troops, and time available

MOPP	mission oriented protective posture
MP	military police
MSB	main support battalion
MSR	main supply route
MTP	mission training plan
MWR	morale, welfare, and recreation
NAI	named area of interest
NBC	nuclear, biological, and chemical
NSF	naval surface fires
NTC	National Training Center
O&I	operations and intelligence
OB	order of battle
OPFAC	operational facility
OPORD	operations order
OPSEC	operations security
Pam	pamphlet
PIR	priority intelligence requirement
PLL	prescribed load list
PSNCO	personnel services noncommissioned officer
R&S	reconnaissance and surveillance

RACO	rear area combat operations
retrans	retransmission
RFL	restrictive fire line
ROE	rules of engagement
RSO	reconnaissance and survey officer
S1	Adjutant/Personnel Officer, Brigade and Battalion Staff
S2	Intelligence Officer, Brigade and Battalion Staff
S3	Operations and Training Officer, Brigade and Battalion Staff
S4	Supply/Logistics Officer, Brigade and Battalion Staff
SEAD	suppression of enemy air defenses
SIT TEMP	situation template
SITMAP	situation map
SITREP	situation report
SOI	signal operation instructions
SOP	standing operating procedure
TAC	tactical
TACFIRE	tactical fire direction system
TAI	target area of interest
TC	training circular
TF	task force
TLP	troop leading procedures

TOC	tactical operations center
TRADOC	U.S. Army Training and Doctrine Command
TSOP	tactical standing operating procedures
UAV	unmanned aerial vehicle
UMCP	unit maintenance collection point
USAARMC	U.S. Army Armor Center
USAFAS	U.S. Army Field Artillery School
WARNO	warning order
WSRO	weapons systems replacement operations
XO	executive officer